Manifestos for an Information Age: An Anthology

Release

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Apr 28, 2016

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CHAPTER

ONE

COMING TO TERMS

Understanding Manifestos

A manifesto is a published verbal declaration of the intentions, motives, or views of the issuer, be it an individual, group, political party or government. A manifesto usually accepts a previously published opinion or public consensus and/or promotes a new idea with prescriptive notions for carrying out changes the author believes should be made. It often is political or artistic in nature, but may present an individual's life stance.

Understanding "Hackers"

Forthcoming, The Johns Hopkins Encyclopedia of Digital Textuality (E. Gabriella Coleman) [1]

Introduction

Generally, a hacker is a technologist with a penchant for computing and a hack is a clever technical solution arrived at through non - obvious means (Levy 1984, Turkle 2005).

It is telling that a hack, as defined by the Hacker Jargon File, can mean the complete opposite of an ingenious intervention: a clunky, ugly fix, that nevertheless completes the job at hand.

Among hackers, the term is often worn as a badge of honor. In the popular press, however, the connotations of hacker are often negative, or at minimum refer to illegal intrusion of computer systems.

These differences point to the various meanings and histories associated with the terms *hacker* and *hacking*.

Hackers tend to uphold a cluster of values: freedom, privacy, and access.

They adore computers and networks.

[1] http://gabriellacoleman.org/wp-content/uploads/2013/04/Coleman-Hacker-John-Hopkins-2013-Final.pdf

They are trained in the specialized — and economically lucrative — technical arts of programming, system/network administration, and security.

Some gain unauthorized access to technologies (though much hacking is legal).

Foremost, hacking, in its different incarnations, embodies an aesthetic where craftsmanship and craftiness converge; hackers value playfulness, pranking and cleverness, and will frequently display their wit through source code, humor, or both.

But once one confronts hacking historically and sociologically, this shared plane melts into a sea of differences that have, until recently, been overlooked in the literature on hacking (Coleman and Golub 2008, Jordan 2008).

Rethinking the Story of the Hacker Ethic, from Single-Origin to Multiple Origins

The term hacker was first used consistently in the 1960s among technologists at MIT whose lives maniacally revolved around making, using and improving computer software — a preoccupation that Steven Levy dubbed "a daring symbiosis between man and machine" in his engaging 1984 account *Hackers: Heroes of the Computer Revolution* (1984: 39).

Levy unbundled the groups' unstated ethical codes from their passionate, everyday collective pursuits and conceptualized them as "the hacker ethic," shorthand for a mix of aesthetic and pragmatic imperatives that included:

- commitment to information freedom,
- mistrust of authority,
- heightened dedication to meritocracy,
- and the firm belief that computers can be the basis for beauty and a better world (1984: 39-46).

Levy's book not only represented what had been, at the time, an esoteric community but also inspired others to identify with the moniker "hacker" and its ethical principles.

By the 1980s, many other technologists routinely deployed the term *hacker,* individuals enthralled with tinkering and technical spelunking but whose history and politics were distinct from those chronicled by Levy.

Sometimes referred to as the "hacker underground," the story goes that they arose in the 1980s, sullying what had been a pristine and legal tradition. What is often overlooked is their history: their heirs are the phone phreaks who existed at the same time as the first crop of university hackers in the late 1950s and early 1960s.

These phreaks, as they were eventually known, tapped into the phone system to make free phone calls, explored *The System,* and found each other on phone conferences also known as party lines (Sterling 1992, Rosenbaum 1971, Thomas 2003).

The end of the analog phone network after the divestiture of "Ma Bell" heralded the end of the golden age of phreaking, which was largely replaced with the exploration of computer networks.

The marriage between phreaking and computer hacking was represented in the popular e-zine *Phrack*, first published in 1985 on Bulletin Boards Systems, where hackers of all kinds congregated (Scott 2005, Sterling 1992, Thomas 2002).

Hackers in this vein would continue to publish prolifically in diverse genres, including manifestos (most famously "The Conscience of a Hacker"), textfiles (written in sparse ASCII text but often filled with ASCII art, audaciously worded content) and zines (such as *Hack-Tic* in the Netherlands and *2600* in the United States).

By the 1990s, they were routinely meeting during annual hacker "cons" (Coleman 2010).

Although many of these underground hackers engaged in technical exploration, often scouting for security vulnerabilities, they also sought forbidden fruit and their actions included mockery, spectacle, and transgression—a politics and ethics distinct from the university hackers of MIT, Carnegie Mellon, and Stanford (although there was plenty of pranking and irreverence among these hackers).

The canonical narrative identifying MIT as hackings' first homeland — a place where the hacker ethic was born — is complicated when we account for other traditions such as phreaking, which existed independently of university-based hacker communities, and shaped a subversive tradition that flourished in the 1980s and 1990s, only to change with the rise of the security industry and new laws criminalizing computer break-ins.

Instead of locating a single point of origin for hacking, we should be attentive to *multiple origins, distinct lineages and variable ethics.*

The Politics of Naming

By the late 1980s, although various instances of hacking existed, this more subversive tradition became the public face of hacking, cemented, and sometimes distorted by, media accounts. Some hackers, concerned by the illicit actions of other hackers and negative, sensationalist media portrayals, started to call those who hacked for illegal or malicious purposes, "crackers" (Nissenbaum 2004).

The use of "cracker" was a linguistic attempt to reclaim and sanitize "hacker." Unsurprisingly, many hackers also questioned the term.

As more automation tools became available, many also started to use the derogatory terms "script kiddies" to designate those who use scripts to circumvent computer security or deface websites, rather than finding a unique compromise. It is a scornful term (no one would elect to self-designate as such) that demarcates boundaries, signals appropriate behavior, and gives voice to the value placed on ingenuity, inventiveness and self-sufficiency.

To this day, debate rages among technologists: who deserves the title of "hacker"?

What constitutes its parameters? Some readily accept variability, while others starkly demarcate borders.

When asked, many are ready to fire off definitions. When interviewed, two hackers distinguished between builders — often found in free and open-source communities whose lineage goes back to the university communities explored in Levy — and breakers with whom these hackers identify.

They define breakers as follows:

Di: I call myself a hacker, what I mean is that I apply creativity and technical knowledge to bypassing defenses.

Da: Yeah I've heard 'obtaining lower level understanding of a system to bypass systems'

...which is a reasonable definition.

Genres of Hacking

To hackers themselves, "to hack" can thus mean distinct activities, from improving the Linux operating system to finding vulnerabilities and "fuzzing" for exploits.

Some distinctions are subtle, while others are profound enough to warrant thinking about hacking in terms of genres with distinct aesthetics and histories (Coleman and Golub 2008).

Free and Open-Source hackers — those that have used legal means to guarantee perpetual access to source code — tend to uphold political structures of transparency (Coleman 2012c).

In contrast, the hacker underground is more opaque in its social organization (Thomas 2003). These hackers have made secrecy and spectacle into a high art form (Coleman 2012b).

For decades in Europe, artistic practice has been marshaled for the sake of hackings (Bazzichelli 2008, Deseriis and Marano 2008).

Hardware hacking has also been part of hacking for a long time.

Historically, its most notable manifestation was among the Homebrew hackers of the Bay Area who hacked one of the first personal computer kits, the MITS Altair 8800, and helped fuel a nascent personal computer industry.

Today, hardware hacking is exploding, buoyed by the spread of hack spaces — physical workshops filled with tools and computers — across North America and Europe but also in Latin America and China.

Some hackers run vibrant political collectives whose names, *Riseup* and *Mayfirst*, unabashedly broadcast their technical crusade to make this world a better one (Juris 2008, Milberry 2012).

Other politically-minded hackers have gravitated toward Anonymous — an umbrella term for a range of distinct and often unconnected digital operations — to engage in hacking for the sake of leaking sensitive corporate and government information (Coleman 2012a), extending a longer tradition in hacktivism (Taylor and Jordan 2004).

Others — for example, many "infosec" (information security) hackers — are first and foremost committed to security, and tend to steer clear of defining their actions in such overtly political terms, even if hacking tends to creep into political territory.

Among those in the infosec community there are differences as to whether one should release a security vulnerability (often called full disclosure) or announce its existence without revealing details (referred to as anti-disclosure).

A smaller, more extreme movement known as anti-sec, is vehemently against any disclosure, claiming that it is their "goal that, through mayhem and the destruction of all exploitative and detrimental communities, companies, and individuals, full disclosure will be abandoned and the security industry will be forced to reform."

National andregional differences also make their mark. Southern European hackers have articulated a more leftist, anarchist commitment than their northern European counterparts.

Recently, nationalistic hacking — though virtually unexplored by scholars — has spread (Karatzogianni 2006 is an important exception). Pakistani hackers are routinely at war with their Indian neighbors. Chinese hackers are quite nationalistic in their aims and aspirations (Henderson 2007), in contrast to those in North America, Latin America, and Europe, whose anti-authoritarian stance makes many — though certainly not all — wary of joining government endeavors.

It would be a mistake to treat different types of hacking as cultural cocoons.

Technical architectures, the language of codes, and protocols bring together different types of hackers and activities. For instance, as it was developed over the last four decades, the Unix Operating System, has worked to bind thousands of hackers together as part of what Chris Kelty calls a "recursive public" (2008).

While we can say that hacker action and ethical principles share a common core or general ethos, *inquiry demonstrates that we can identify variance and even serious points of contention.*

Given the multi-faceted, rich, and often controversial political effects engendered by hackers, from the creation of new licensing regimes to exposing the abuses of the surveillance state (Himanen 2001, Söderberg 2008, Wark 2004) and its historical dynamism, it *is imperative to keep the variations of hacking at the forefront of our inquiries.*

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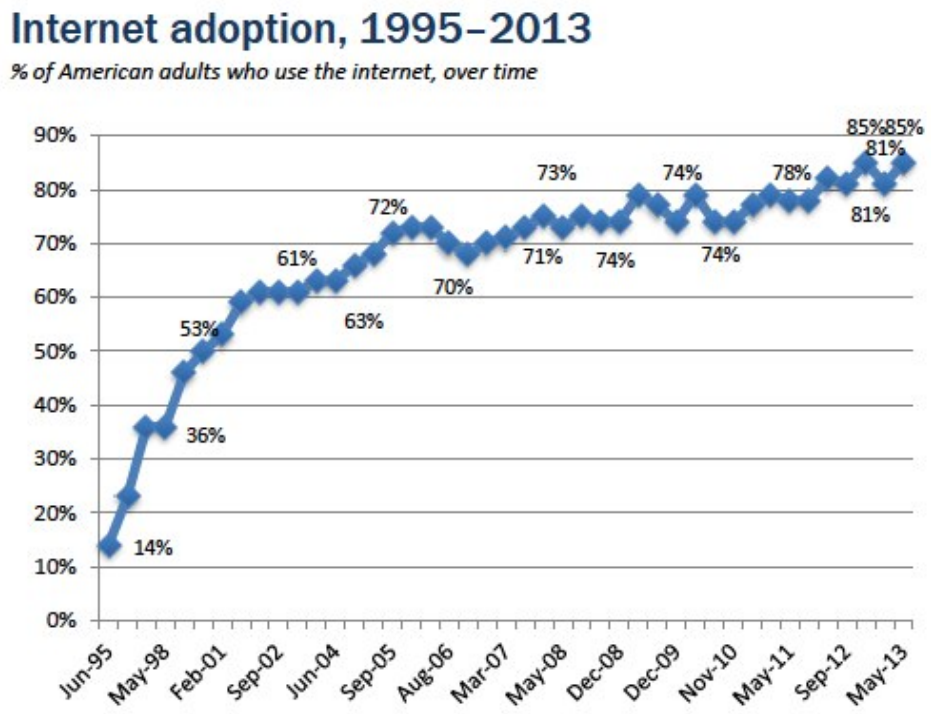
CHAPTER

TWO

COMPUTER NETWORKING TIMELINE

Internet Adoption



Source: Pew Internet & American Life Project Surveys, March 2000-May 2013. All surveys prior to March 2000 were conducted by the Pew Research Center for People & the Press.

Internet Timeline

1969

ARPA (Advanced Research Projects Agency) goes online in December, connecting four major U.S. universities. Designed for research, education, and government organizations, it provides a communications network linking the country in the event that a military attack destroys conventional communications systems.

1972

Electronic mail is introduced by Ray Tomlinson, a Cambridge, Mass., computer scientist. He uses the @ to distinguish between the sender's name and network name in the email address.

1973

Transmission Control Protocol/Internet Protocol (TCP/IP) is designed and in 1983 it becomes the standard for communicating between computers over the Internet. One of these protocols, FTP (File Transfer Protocol), allows users to log onto a remote computer, list the files on that computer, and download files from that computer.

1976

Presidential candidate Jimmy Carter and running mate Walter Mondale use email to plan campaign events.

Queen Elizabeth sends her first email. She's the first state leader to do so.

1982

The word "Internet" is used for the first time.

1984

Domain Name System (DNS) is established, with network addresses identified by extensions such as .com, .org, and .edu.

Writer William Gibson coins the term "cyberspace."

1985

Quantum Computer Services, which later changes its name to America Online, debuts. It offers email, electronic bulletin boards, news, and other information.

1988

A virus called the Internet Worm temporarily shuts down about 10% of the world's Internet servers.

1989

The World (world.std.com) debuts as the first provider of dial-up Internet access for consumers.

Tim Berners-Lee of CERN (European Laboratory for Particle Physics) develops a new technique for distributing information on the Internet. He calls it the World Wide Web. The Web is based on hypertext, which permits the user to connect from one document to another at different sites on the Internet via hyperlinks (specially programmed words, phrases, buttons, or graphics). Unlike other Internet protocols, such as FTP and email, the Web is accessible through a graphical user interface.

1990

The first effort to index the Internet is created by Peter Deutsch at McGill University in Montreal, who devises Archie, an archive of FTP sites.

1991

Gopher, which provides point-and-click navigation, is created at the University of Minnesota and named after the school mascot. Gopher becomes the most popular interface for several years.

Another indexing system, WAIS (Wide Area Information Server), is developed by Brewster Kahle of Thinking Machines Corp.

1993

Mosaic is developed by Marc Andreeson at the National Center for Supercomputing Applications (NCSA). It becomes the dominant navigating system for the World Wide Web, which at this time accounts for merely 1% of all Internet traffic.

1994

The White House launches its website, www.whitehouse.gov.

Initial commerce sites are established and mass marketing campaigns are launched via email, introducing the term "spamming" to the Internet vocabulary.

Marc Andreessen and Jim Clark start Netscape Communications. They introduce the Navigator browser.

1995

CompuServe, America Online, and Prodigy start providing dial-up Internet access.

Sun Microsystems releases the Internet programming language called Java.

The Vatican launches its own website, www.vatican.va.

1996

Approximately 45 million people are using the Internet, with roughly 30 million of those in North America (United States and Canada), 9 million in Europe, and 6 million in Asia/Pacific (Australia, Japan, etc.). 43.2 million (44%) U.S. households own a personal computer, and 14 million of them are online.

1997

On July 8, 1997, Internet traffic records are broken as the NASA website broadcasts images taken by Pathfinder on Mars. The broadcast generates 46 million hits in one day.

The term "weblog" is coined. It's later shortened to "blog."

1998

Google opens its first office, in California.

1999

College student Shawn Fanning invents Napster, a computer application that allows users to swap music over the Internet.

The number of Internet users worldwide reaches 150 million by the beginning of 1999. More than 50% are from the United States.

"E-commerce" becomes the new buzzword as Internet shopping rapidly spreads.

MySpace.com is launched.

2000

To the chagrin of the Internet population, deviant computer programmers begin designing and circulating viruses with greater frequency. "Love Bug" and "Stages" are two examples of self-replicating viruses that send themselves to people listed in a computer user's email address book. The heavy volume of email messages being sent and received forces many infected companies to temporarily shut down their clogged networks.

The Internet bubble bursts, as the fountain of investment capital dries up and the Nasdaq stock index plunges, causing the initial public offering (IPO) window to slam shut and many dotcoms to close their doors.

America Online buys Time Warner for $16 billion. It's the biggest merger of all time.

2001

Napster is dealt a potentially fatal blow when the 9th U.S. Circuit Court of Appeals in San Francisco rules that the company is violating copyright laws and orders it to stop distributing copyrighted music. The file-swapping company says it is developing a subscription-based service.

About 9.8 billion electronic messages are sent daily.

Wikipedia is created.

2002

As of January, 58.5% of the U.S. population (164.14 million people) uses the Internet. Worldwide there are 544.2 million users.

The death knell tolls for Napster after a bankruptcy judge ruled in September that German media giant Bertelsmann cannot buy the assets of troubled Napster Inc. The ruling prompts Konrad Hilbers, Napster CEO, to resign and lay off his staff.

2003

It's estimated that Internet users illegally download about 2.6 billion music files each month.

Spam, unsolicited email, becomes a server-clogging menace. It accounts for about half of all emails. In December, President Bush signs the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 (CAN-SPAM Act), which is intended to help individuals and businesses control the amount of unsolicited email they receive.

Apple Computer introduces Apple iTunes Music Store, which allows people to download songs for 99 cents each.

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2004

Internet Worm, called MyDoom or Novarg, spreads through Internet servers. About 1 in 12 email messages are infected.

Online spending reaches a record high—$117 billion in 2004, a 26% increase over 2003.

2005

YouTube.com is launched.

2006

There are more than 92 million websites online.

2007

Legal online music downloads triple to 6.7 million downloads per week.

Colorado Rockies' computer system crashes when it receives 8.5 million hits within the first 90 minutes of World Series ticket sales.

The online game, World of Warcraft, hits a milestone when it surpasses 9 million subscribers worldwide in July.

2008

In a move to challenge Google's dominance of search and advertising on the Internet, software giant Microsoft offers to buy Yahoo for $44.6 billion.

In a San Fransisco federal district court, Judge Jeffrey S. White orders the disabling of Wikileaks.org, a Web site that discloses confidential information. The case was brought by Julius Baer Bank and Trust, located in the Cayman Islands, after a disgruntled ex-employee allegedly provided Wikileaks with stolen documents that implicate the bank in asset hiding, money laundering, and tax evasion. Many web communities, who see the ruling as unconstitutional, publicized alternate addresses for the site and distributed bank documents through their own networks. In response, Judge White issues another order to stop the distribution of bank documents.

Microsoft is fined $1.3 billion by the European Commission for further abusing its dominant market position, and failing to comply to their 2004 judgment, which ordered Microsoft to give competitors information necessary to operate with Windows. Since 2004, Microsoft has been fined a total of $2.5 billion by the Commission for not adhering to their ruling.

2012

A major protest online in January shakes up Congressional support for anti-Web piracy measures. The protest, including a 24-hour shutdown of the English-language Wikipedia site, is over two bills, the Stop Online Piracy Act in the House and the Protect IP Act in the Senate. The main goal of both bills is to stop illegal downloading and streaming of TV shows and movies online. The tech industry is concerned that the bills will give media companies too much power to shut down websites.

2014

A coding error discovered in April in OpenSSL, encryption software that makes transactions between a computer and a remote secure, makes users vulnerable to having their usernames, passwords, and personal information stolen. Millions of banks, Internet commerce companies, email services, government sites, and social media sites rely on OpenSSL to conduct secure transactions. The coding error was made in 2012. Computer security experts encourage computer users to change their passwords.

Sources for this timeline include International Data Corporation, the W3C Consortium, Nielsen/NetRatings, and the Internet Society.

CHAPTER

THREE

THE HACKER MANIFESTO (THE MENTOR, 1986)

Preface

The Conscience of a Hacker, also called the Hacker Manifesto, was published in 1986. Loyd Blankenship aka The Mentor wrote it after his arrest and it got picked up by Phrack, and achieved fame since then.

The Conscience of a Hacker

Another one got caught today, it's all over the papers. "Teenager Arrested in Computer Crime Scandal", "Hacker Arrested after Bank Tampering"...

Damn kids. They're all alike.

But did you, in your three-piece psychology and 1950's technobrain, ever take a look behind the eyes of the hacker ? Did you ever wonder what made him tick, what forces shaped him, what may have molded him ?

I am a hacker, enter my world...

Mine is a world that begins with school... I'm smarter than most of the other kids, this crap they teach us bores me...

Damn underachiever. They're all alike.

I'm in junior high or high school. I've listened to teachers explain for the fifteenth time how to reduce a fraction. I understand it. "No, Ms. Smith, I didn't show my work. I did it in my head..."

Damn kid. Probably copied it. They're all alike.

I made a discovery today. I found a computer. Wait a second, this is cool. It does what I want it to. If it makes a mistake, it's because I screwed it up. Not because it doesn't like me...

Or feels threatened by me...

Or thinks I'm a smart ass...

Or doesn't like teaching and shouldn't be here...

Damn kid. All he does is play games. They're all alike.

And then it happened... a door opened to a world... rushing through the phone line like heroin through an addict's veins, an electronic pulse is sent out, a refuge from the day-to-day incompetencies is sought... a board is found.

"This is it... this is where I belong..." I know everyone here... even if I've never met them, never talked to them, may never hear from them again... I know you all...

Damn kid. Tying up the phone line again. They're all alike...

You bet your ass we're all alike... we've been spoon-fed baby food at school when we hungered for steak... the bits of meat that you did let slip through were pre-chewed and tasteless. We've been dominated by sadists, or ignored by the apathetic. The few that had something to teach found us willing pupils, but those few are like drops of water in the desert.

This is our world now... the world of the electron and the switch, the beauty of the baud. We make use of a service already existing without paying for what could be dirt-cheap if it wasn't run by profiteering gluttons, and you call us criminals. We explore... and you call us criminals. We seek after knowledge... and you call us criminals. We exist without skin color, without nationality, without religious bias... and you call us criminals. You build atomic bombs, you wage wars, you murder, cheat, and lie to us and try to make us believe it's for our own good, yet we're the criminals.

Yes, I am a criminal. My crime is that of curiosity. My crime is that of judging people by what they say and think, not what they look like. My crime is that of outsmarting you, something that you will never forgive me for.

I am a hacker, and this is my manifesto. You may stop this individual, but you can't stop us all... after all, we're all alike.

CHAPTER

FOUR

CRYPTO ANARCHIST MANIFESTO (TIMOTHY C. MAY, 1988)

A specter is haunting the modern world, the specter of crypto anarchy.

Computer technology is on the verge of providing the ability for individuals and groups to communicate and interact with each other in a totally anonymous manner. Two persons may exchange messages, conduct business, and negotiate electronic contracts without ever knowing the True Name, or legal identity, of the other. Interactions over networks will be untraceable, via extensive re-routing of encrypted packets and tamper-proof boxes which implement cryptographic protocols with nearly perfect assurance against any tampering. Reputations will be of central importance, far more important in dealings than even the credit ratings of today. These developments will alter completely the nature of government regulation, the ability to tax and control economic interactions, the ability to keep information secret, and will even alter the nature of trust and reputation.

The technology for this revolution, and it surely will be both a social and economic revolution, has existed in theory for the past decade. The methods are based upon public-key encryption, zero-knowledge interactive proof systems, and various software protocols for interaction, authentication, and verification. The focus has until now been on academic conferences in Europe and the U.S., conferences monitored closely by the National Security Agency. But only recently have computer networks and personal computers attained sufficient speed to make the ideas practically realizable. And the next ten years will bring enough additional speed to make the ideas economically feasible and essentially unstoppable. High-speed networks, ISDN, tamper-proof boxes, smart cards, satellites, Ku-band transmitters, multi-MIPS personal computers, and encryption chips now under development will be some of the enabling technologies.

The State will of course try to slow or halt the spread of this technology, citing national security concerns, use of the technology by drug dealers and tax evaders, and fears of societal disintegration. Many of these concerns will be valid; crypto anarchy will allow national secrets to be trade freely and will allow illicit and stolen materials to be traded. An anonymous computerized market will even make possible abhorrent markets for assassinations and extortion. Various criminal and foreign elements will be active users of CryptoNet. But this will not halt the spread of crypto anarchy.

Just as the technology of printing altered and reduced the power of medieval guilds and the social power structure, so too will cryptologic methods fundamentally alter the nature of corporations

and of government interference in economic transactions. Combined with emerging information markets, crypto anarchy will create a liquid market for any and all material which can be put into words and pictures. And just as a seemingly minor invention like barbed wire made possible the fencing-off of vast ranches and farms, thus altering forever the concepts of land and property rights in the frontier West, so too will the seemingly minor discovery out of an arcane branch of mathematics come to be the wire clippers which dismantle the barbed wire around intellectual property.

Arise, you have nothing to lose but your barbed wire fences!

CHAPTER

FIVE

A CYPHERPUNK'S MANIFESTO (ERIC HUGHES, 1993)

March 9, 1993

Privacy is necessary for an open society in the electronic age. Privacy is not secrecy. A private matter is something one doesn't want the whole world to know, but a secret matter is something one doesn't want anybody to know. Privacy is the power to selectively reveal oneself to the world.

If two parties have some sort of dealings, then each has a memory of their interaction. Each party can speak about their own memory of this; how could anyone prevent it? One could pass laws against it, but the freedom of speech, even more than privacy, is fundamental to an open society; we seek not to restrict any speech at all. If many parties speak together in the same forum, each can speak to all the others and aggregate together knowledge about individuals and other parties. The power of electronic communications has enabled such group speech, and it will not go away merely because we might want it to.

Since we desire privacy, we must ensure that each party to a transaction have knowledge only of that which is directly necessary for that transaction. Since any information can be spoken of, we must ensure that we reveal as little as possible. In most cases personal identity is not salient. When I purchase a magazine at a store and hand cash to the clerk, there is no need to know who I am. When I ask my electronic mail provider to send and receive messages, my provider need not know to whom I am speaking or what I am saying or what others are saying to me; my provider only need know how to get the message there and how much I owe them in fees. When my identity is revealed by the underlying mechanism of the transaction, I have no privacy. I cannot here selectively reveal myself; I must always reveal myself.

Therefore, privacy in an open society requires anonymous transaction systems. Until now, cash has been the primary such system. An anonymous transaction system is not a secret transaction system. An anonymous system empowers individuals to reveal their identity when desired and only when desired; this is the essence of privacy.

Privacy in an open society also requires cryptography. If I say something, I want it heard only by those for whom I intend it. If the content of my speech is available to the world, I have no privacy. To encrypt is to indicate the desire for privacy, and to encrypt with weak cryptography is to indicate not too much desire for privacy. Furthermore, to reveal one's identity with assurance when the default is anonymity requires the cryptographic signature.

We cannot expect governments, corporations, or other large, faceless organizations to grant us privacy out of their beneficence. It is to their advantage to speak of us, and we should expect that they will speak. To try to prevent their speech is to fight against the realities of information. Information does not just want to be free, it longs to be free. Information expands to fill the available storage space. Information is Rumor's younger, stronger cousin; Information is fleeter of foot, has more eyes, knows more, and understands less than Rumor.

We must defend our own privacy if we expect to have any. We must come together and create systems which allow anonymous transactions to take place. People have been defending their own privacy for centuries with whispers, darkness, envelopes, closed doors, secret handshakes, and couriers. The technologies of the past did not allow for strong privacy, but electronic technologies do.

We the Cypherpunks are dedicated to building anonymous systems. We are defending our privacy with cryptography, with anonymous mail forwarding systems, with digital signatures, and with electronic money.

Cypherpunks write code. We know that someone has to write software to defend privacy, and since we can't get privacy unless we all do, we're going to write it. We publish our code so that our fellow Cypherpunks may practice and play with it. Our code is free for all to use, worldwide. We don't much care if you don't approve of the software we write. We know that software can't be destroyed and that a widely dispersed system can't be shut down.

Cypherpunks deplore regulations on cryptography, for encryption is fundamentally a private act. The act of encryption, in fact, removes information from the public realm. Even laws against cryptography reach only so far as a nation's border and the arm of its violence. Cryptography will ineluctably spread over the whole globe, and with it the anonymous transactions systems that it makes possible.

For privacy to be widespread it must be part of a social contract. People must come and together deploy these systems for the common good. Privacy only extends so far as the cooperation of one's fellows in society. We the Cypherpunks seek your questions and your concerns and hope we may engage you so that we do not deceive ourselves. We will not, however, be moved out of our course because some may disagree with our goals.

The Cypherpunks are actively engaged in making the networks safer for privacy. Let us proceed together apace.

Onward.

Eric Hughes <hughes@soda.berkeley.edu>

CHAPTER

SIX

MANIFESTO FOR BAD SUBJECTS IN CYBERSPACE (1995)

Preface

Subject

Digital Diaspora, Digital Community

Description

The Bad Subjects Production Team, authors of the Manifesto for Bad Subjects in Cyberspace, are primariy concerned with communal production and relations in cyberspace. Reminding the reader that cyberspace is malleable and unpredictable, the Bad Subjects Production Team desire to create a digital space that opposes both liberal communal institutions and the exploitative forces of capital.

Creator

Bad Subjects Production Team

Source

http://bad.eserver.org/issues/1995/18/manifesto.html

Publisher

http://bad.eserver.org/

Date

January 1995

Rights

Body

While communities in cyberspace might have radical potential, it is important to keep in mind that such potential is not inherent to the medium itself. Cyberspace is not itself a community; many types of communities exist on computer networks, most of which are nothing more than an extension of the kinds of routine interactions we expect to encounter in capitalism.

Introduction

In September of 1993, the Bad Subjects Collective published 'A Manifesto for Bad Subjects,' in which we offered a critique of existing leftist politics. We argued that the Left today is characterized by cynicism, an investment in multiculturalism which emphasizes separatism, and a desire to compensate for its ineffectiveness by celebrating victimization and marginalization. At that time, Bad Subjects was just beginning to establish a presence on the Internet by organizing an e-mail list and setting up a gopher site where an electronic version of our publication is available. Through these avenues, our manifesto reached an audience larger than we had ever imagined possible. We received responses from as far away as Russia and New Zealand; the manifesto was even taught in classes across the United States. It has now become clear that Bad Subjects identity and popularity are largely a result of our on-line presence. While hard copies of the publication continue to be circulated, the vast majority of our readers come to us through the Internet.

In the manifesto, we recommended that leftist politics be more relevant to our everyday lives; in this way, we hoped to suggest a new relationship between personal and political commitments. Because our everyday life as bad subjects takes place largely on the Net, we want to offer an example of how to put this recommendation into practice. Whereas the Internet was once just a way for us to disseminate our articles, it has now become an important social context for the exchange and development of what on-line users have dubbed badsubjectian ideas. In short, cyberspace has become both an organizing tool and meeting place for bad subjects. It has also come to resemble — in some ways — the kind of Utopian community we imagined in our original manifesto. What follows represents our collective effort to explore the radical potential of cyberspace, while acknowledging its limitations.

Cyberspace and Global Capital

Cyberspace is the technological fetish of the moment, just as the telephone, automobile, radio, and television once were. In this sense, cyberspace can be said to represent the next logical step in the expansion of the mass media. Throughout the 20th Century, leftists from the Frankfurt School to contemporary critics such as Douglas Kellner and Todd Gitlin have been debating whether the mass media are a progressive or reactionary force. There has always been a danger that the mass media will only function as propaganda for the ruling classes. But at the same time, independent uses of mass media by radical groups have been cited as examples of the subversive potential of cheap technologies which can help organize and inform the masses.

Popular histories of the Internet generally underscore its chaotic and seemingly unreal structure. An Esquire magazine guide to getting on-line (December, 1994) by Phil Patton is typical, describing a dizzying landscape...whose ruling philosophy is complexity theory — the happy belief that this chaos will all sort itself out somehow, someday, and meanwhile, hey, go with the flow. ARPANET, the seed from which the Internet grew, was one of the US Department of Defenses innumerable Cold-War projects. Pattons history of the Internet parallels that of most other popular accounts in noting that its military origins did not prevent it from being appropriated by civilians. As the net became a means of communication, Patton writes, on its margins, just as beside the railroad or blacktop, a new culture began to sprout. Despite its historical connection to American nationalist politics, the Internet is perceived to be a place where anarchy reigns: state-planning created the Internet, but has now lost control over it.

Discussions of the Internets radical potential have tended to focus on this anarchic quality. Commentators have celebrated the ways in which the Internet has frustrated attempts by centralized powers to steer its development in a particular direction. Understandably, leftists wary of state power have agreed with them. But celebrating the chaos of the Internet comes dangerously close to celebrating the so-called free market of capitalism. The free market is supposed to be a space of productive chaos inimical to regulation. Ideally it functions all by itself without any political or economic steering. The free market promotes individualism; indeed, it is thought to function best when it encompasses a great diversity of tastes and needs. Moreover, the free market is a fiction which disguises the web of unequal social relationships constituting it.

Substituting the word cyberspace for free market in these descriptions allows us to see that what we value about cyberspace resembles what the Left has criticized about capitalism. Like global capitalism, computer networks bring people together in alienation rather than solidarity. People who interact on-line are generally not privy to the way those networks are produced by actual people existing within a concrete economic order. Cyberspace is a commodity in the process of being produced by programmers, paid system operators, and a range of volunteers who parcel out memory to users, generate more complicated interactive data spaces, and maintain order on newsgroups, mailing lists, and FTP sites. The Net is not antithetical to the free market, to consumerism, or to alienated labor. After all, science fiction author William Gibson invented the term cyberspace to describe virtual reality in a future dominated by multinational corporations and wealthy elites who prey on a vast, international underclass.

While communities in cyberspace might have radical potential, it is important to keep in mind

that such potential is not inherent to the medium itself. Cyberspace is not itself a community; many types of communities exist on computer networks, most of which are nothing more than an extension of the kinds of routine interactions we expect to encounter in capitalism. On Usenet and the World Wide Web, for example, we encounter thinner and thinner boundaries between personal expression, politics, and advertising. There are newsgroups devoted simply to job listings. On World Wide Web, you might click on a word in the middle of an article about progressive politics in Slovenia and find yourself linked to an infoblurb promoting tourism in Eastern Europe. On-line galleries exist in a number of locations for the purposes of selling art, music, or text. Thus, the Internet reflects the economic and social conditions that underpin it.

In our excitement over the Internets potential, we must be wary of buying into the ideology of the free market it mirrors. If we value the Internet because it is chaotic, decentered, and promotes individuality for its own sake, then it is only a matter of time before we start to value the free market for the same reasons.

Democracy Is Not Utopia

Promises of a good society offered by cybernetic communication are familiar to us by now. They come out of what we might call the democratic Utopianism espoused by everyone from techno-anarchists like the staff of Mondo 2000 to self-styled conservative futurist Newt Gingrich. Like the fiction of a free market, on-line democratic Utopianism is heavily informed by a belief that unhindered personal expression is the measure of our social freedom.

In on-line democratic Utopianism, cyberspace community ends up emulating political communities in physical reality. Hence, the drawbacks of actually existing democracy as we know it in the United States are prevalent in computer networks: the middle- and upper-classes constitute the largest and most vocal group, promoting their own interests without having to pay attention to the needs and desires of the underclasses and disenfranchised groups. Much has been made, for example, of the way politicians, local governments, and special interest groups can have town hall meetings in virtual reality and hear from the people. But on the Net, after all, one pays for the privilege of participating in any town hall meeting. Moreover, cyberspace runs the risk of becoming individualist to the point of parody, where personal expression is overvalued so much that it is impossible to assert anything unless it begins with the cyberslang disclaimer IMO [in my opinion].

An overemphasis on the personal has led to many of the problems leftists face today when they try to organize themselves as a mass community once more. Personal or identity politics have led to distrust of all groups which attempt to take a strong, unified stance which might appeal to mainstream society. Multiculturalism has helped Americans to modify their interpersonal relations — making it rude and often illegal to be racist or sexist — but it has also undermined our ability to view the political as political. Lacking a clear vision of politics which go beyond the personal, the Left shies away from any program or set of goals which assert that large numbers of people can change society for the better. Whose society are you talking about? the multiculturalist might ask. Hearing that this society is one we all share, the multiculturalist disgustedly replies, No such society exists, and if it did, it would be oppressive. Certainly this is the case if all politics are merely personal, since no two people can share the same life. But politics go beyond individual

experience.

To bring about a more just society, the left must commit to a politics which validate personal identity while at the same time transcending it. For this reason, the potential for political community in cyberspace seems particularly salient. On a computer network, identity as we know it in our daily lives is altered. Because we cannot instantly see each other as races, genders, ages, etc., in a computer environment, peoples impulse to judge one another as such is hindered. We could never argue that these judgments do not occur, and certainly many people on-line make sure to identify themselves somewhere on the multiculturalist spectrum. Nevertheless, it is appropriate to assert that radical communities on-line would not fall out along the same lines as they might in physical reality.

Computer networks are, as many commentators have noted, global, or, at the very least, international. Indeed, since going on-line, the Bad Subjects mailing list and readers have been made up of people from around the world. A radical community in cyberspace would, therefore, be constituted by a population united by their desire to affect more than simply their cultural group or national region. Insofar as people can choose how, or if, to represent their (multicultural) identities on-line, cyberspace may provide the ultimate forum for performative identities. That is, a woman on-line might perform the identity of a man, and vice versa. In some ways, we might be tempted to celebrate this, arguing that such a performance undermines the allegedly fixed nature of race, gender, ethnicity, etc.. Such on-line performances take us, perhaps, a small step beyond multiculturalism as we now know it.

What remains fixed, however, are the sites from which on-line access is made available. E-mail address suffixes such as org [organization], gov [government] and edu [education] locate the user within a system of commercial, state, and educational networks. Outside the United States, users are also identified by a country code in their suffix. Although anonymous servers exist which can erase users addresses, these are not entirely foolproof, and their use is limited. This suggests that while multicultural identities can be temporarily transcended (or reinscribed) in cyberspace, work — or class — identities cannot. Cyberspace identities may suggest a post-multicultural and post-national world, but they do not entirely escape their social context.

The Use of Liberal 'Safe Spaces'

Built into the structure of any radical politics is an injunction to form communities. We know for certain that social change is dependent upon teamwork — and the kind of teams we form as radicals can, ideally, become the blueprints for what a better society might look like. Unfortunately, leftist and other radical communities are notorious for their instability and hypocrisy. In the late 60s, the New Left and civil rights movements spawned the womens movement precisely because, to women and their allies, sexist behavior in these movements seemed so clearly in conflict with their stated goals of equality and social justice. Subsequently, the womens movement and other civil rights groups of the 70s, 80s, and 90s have asserted that the personal is political in order to encourage continuity between political convictions and everyday actions.

The limitations of a multiculturalist position are, in part, the impetus behind our ongoing commitment to Bad Subjects. The project of Bad Subjects has always been to provide a forum for

the discussion of leftist politics and, out of that, to build a political community and promote social change. While the hard-copy publication offers a place for people to articulate a substantial and coherent position on an aspect of contemporary culture, the on-line mailing list is a space where people can discuss, more informally, 'political education for everyday life.' On the list, people debate the possible ways in which the Left might be more effective at both understanding and transforming contemporary society. It resembles, therefore, a kind of 'safe space' or 'support group' that allows for the free exchange of ideas and positions. While only a few list members may participate at any given time, the messages are 'bounced' to the 200 or so people who currently subscribe to the list. Even when people do not agree with each other, one result is the on-going production of a 'badsubjectian' position on whatever happens to be the topic at hand. The mailing list, therefore, collectively articulates a position (albeit sometimes a provisional one) on a topic. By participating, list members are acting in ways that suggest the kind of political community the Bad Subjects collective has always tried to work towards.

This kind of free exchange can have its limitations, however. As with any 'safe space' there is a need to be aware of the extent to which containing political discussions within places like the mailing list can give us a false sense of our power to transform society. One problem is that the free exchange of ideas can quickly turn into a debate where every position is considered equally valid. While most people on the list are already committed to leftist politics, discussions occasionally become mired in the kind of individualism mentioned earlier, precluding the possibility of criticism or the articulation of a more coherent, and, ultimately, useful position. While a degree of 'liberal pluralism' — where everyone's opinion is equally valued and respected — is necessary, and the safe space of the list allows for, and, indeed, promotes, such a dynamic, there is a time where a stand needs to be taken in order for any substantial change to be possible.

While discussions on the Bad Subjects mailing list may suggest a kind of collective politics, there is need to distinguish between the feeling of political community that a list can generate, and the ability to make productive use of that community to enact material changes in the world. As with any support group, there is, moreover, a need to leave the group behind and use the techniques and knowledge gained from the list in our lives outside of cyberspace. Indeed, there are many social and political changes that the list makes possible. The exchange of ideas can, and often does, promote a shift in consciousness that contains within itself real material effects. Many people on the list are students, professors, or writers, who use ideas and resources from the list, for example, to change the ways in which they teach and learn in their respective professions.

We need to create a balance between the liberal pluralism found in places like the mailing list and the kind of radical politics that can effectively transform society. There is nothing inherently radical, after all, about either multiculturalism or liberal pluralism. Indeed, both frequently reinforce — by creating 'alternative' or 'niche' markets — the structures of capitalism that we aim to dismantle. While it is, of course, important to be conscious of many social and political perspectives, we must also self-consciously maintain a position that opposes, rather than validates, the structures and ideology of capitalism.

The kinds of interactive discussions taking place on the mailing list break down the boundary between producers and consumers of ideas and actions. Our desire is not to merely reach a mass audience whom we can educate, in other words, but to encourage people to act in the world to effect real social change. We work to make possible a world in which on-line members are not merely

passive recipients of 'badsubjectian' ideas, but active agents helping us to articulate such a position and enact it in the world at large. Self-consciousness about the political potential of cyberspace is, thus, not an end in itself. We must leave the Net behind and use it only as an impetus for social change in the 'real' material world.

A Radical Program for Cyberspace

Cyberspace community is just another form of community, with all its potential pitfalls and triumphs. The form that a community takes is ultimately not the point — but what you do with that community is. And this is why we believe that on-line and real life communities are not in opposition to one another, or in a hierarchical relationship. These communities exist in relation to each other, and are in the process of making each other quite different as a result of their relationship. Real communities may have invented cybercommunities, but at this point there are real communities and relationships which have been forged in cyberspace. Hence, cyberspace and real society are in a dialectical relationship — they mutually create and influence each other.

The materialist dialectic of Marxist tradition is often interpreted to mean a set of relationships in which materiality is the most important factor. This, as many theorists have pointed out, depends on how you define materiality. As much as cyberspace would seem to be the realm of ideas, hence non-material, one needs to remember that there is a materiality to cyberspace. If there were no such materiality, we could not assert that some people have access to it while others do not. Nor could we compare the structure of cyberspace to the structure of capitalism, which is a notoriously materialistic system. Like all raw materials, cyberspace is unequally distributed throughout the world. Hence cyberspace has materiality and an ideology — there are actual ports, machines, and RAM; and there are beliefs we have about it and ways we behave in it. Cybercommunity, like real life community, is a combination of raw materials and human conviviality.

It is therefore reasonable to assume that radical politics in cyberspace do have a relationship to practices in non-virtual reality. A radical political program in cyberspace would recommend actions intended to equalize access to its raw materials and information. It would promote localized and global participation in the maintenance of cyberspace society, or its structure and laws. Finally, it would open up avenues by which anti-capitalist thought might be disseminated and national boundaries eroded. All these actions would have as their intended goal the construction of a future, Utopian society in which human identities are global and people are united by a commitment to justice, shared labor, socialized property, and the peaceful resolution of conflicts.

For the present, cyberspace is in its infancy. In critical discussions, often we speak of potential ways cyberspace might develop as a technology and as a social force. To theorize cyberspace is also to imaginatively project ourselves as a society into the future. Cyberspace is more than just a system of computers; it is also a network of human relationships in the process of emerging. What is Utopian about cyberspace at this point in history is that its structure is obviously not entirely fixed. Perhaps, in deciding how we wish to organize the future of cyberspace, we can teach ourselves that, indeed, the future of human society is not fixed either. We can always choose to be different, and more importantly, we can always choose to be better. Like cyberspace itself, this manifesto is an invitation to remember that, as individuals and as a society, this choice is

always ours.

CHAPTER

SEVEN

A DECLARATION OF THE INDEPENDENCE OF CYBERSPACE (JOHN PERRY BARLOW, 1996)

February 8, 1996

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.

Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders. Do not think that you can build it, as though it were a public construction project. You cannot. It is an act of nature and it grows itself through our collective actions.

You have not engaged in our great and gathering conversation, nor did you create the wealth of our marketplaces. You do not know our culture, our ethics, or the unwritten codes that already provide our society more order than could be obtained by any of your impositions.

You claim there are problems among us that you need to solve. You use this claim as an excuse to invade our precincts. Many of these problems don't exist. Where there are real conflicts, where there are wrongs, we will identify them and address them by our means. We are forming our own Social Contract. This governance will arise according to the conditions of our world, not yours. Our world is different.

Cyberspace consists of transactions, relationships, and thought itself, arrayed like a standing wave in the web of our communications. Ours is a world that is both everywhere and nowhere, but it is not where bodies live.

We are creating a world that all may enter without privilege or prejudice accorded by race, economic power, military force, or station of birth.

We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity.

Your legal concepts of property, expression, identity, movement, and context do not apply to us. They are all based on matter, and there is no matter here.

Our identities have no bodies, so, unlike you, we cannot obtain order by physical coercion. We believe that from ethics, enlightened self-interest, and the commonweal, our governance will emerge. Our identities may be distributed across many of your jurisdictions. The only law that all our constituent cultures would generally recognize is the Golden Rule. We hope we will be able to build our particular solutions on that basis. But we cannot accept the solutions you are attempting to impose.

In the United States, you have today created a law, the Telecommunications Reform Act, which repudiates your own Constitution and insults the dreams of Jefferson, Washington, Mill, Madison, DeToqueville, and Brandeis. These dreams must now be born anew in us.

You are terrified of your own children, since they are natives in a world where you will always be immigrants. Because you fear them, you entrust your bureaucracies with the parental responsibilities you are too cowardly to confront yourselves. In our world, all the sentiments and expressions of humanity, from the debasing to the angelic, are parts of a seamless whole, the global conversation of bits. We cannot separate the air that chokes from the air upon which wings beat.

In China, Germany, France, Russia, Singapore, Italy and the United States, you are trying to ward off the virus of liberty by erecting guard posts at the frontiers of Cyberspace. These may keep out the contagion for a small time, but they will not work in a world that will soon be blanketed in bit-bearing media.

Your increasingly obsolete information industries would perpetuate themselves by proposing laws, in America and elsewhere, that claim to own speech itself throughout the world. These laws would declare ideas to be another industrial product, no more noble than pig iron. In our world, whatever the human mind may create can be reproduced and distributed infinitely at no cost. The global conveyance of thought no longer requires your factories to accomplish.

These increasingly hostile and colonial measures place us in the same position as those previous lovers of freedom and self-determination who had to reject the authorities of distant, uninformed powers. We must declare our virtual selves immune to your sovereignty, even as we continue to consent to your rule over our bodies. We will spread ourselves across the Planet so that no one can arrest our thoughts.

We will create a civilization of the Mind in Cyberspace. May it be more humane and fair than the world your governments have made before.

CHAPTER

EIGHT

A CYBERPUNK MANIFESTO (CHRISTIAN AS. KIRTCHEV, 1997)

February 14, 1997

We are the ELECTRONIC MINDS, a group of free-minded rebels. Cyberpunks. We live in Cyberspace, we are everywhere, we know no boundaries. This is our manifest. The Cyberpunks' manifest.

Cyberpunk

1/ We are those, the Different. Technological rats, swimming in the ocean of information.

2/ We are the retiring, little kid at school, sitting at the last desk, in the corner of the class room.

3/ We are the teenager everybody considers strange.

4/ We are the student hacking computer systems, exploring the depth of his reach.

5/ We are the grown-up in the park, sitting on a bench, laptop on his knees, programming the last virtual reality.

6/ Ours is the garage, stuffed with electronics. The soldering iron in the corner of the desk and the nearby disassembled radio, they are also ours. Ours is the cellar with computers, buzzing printers and beeping modems.

7/ We are those that see reality in a different way. Our point of view shows more than ordinary people can see. They see only what is outside, but we see what is inside. That's what we are - realists with the glasses of dreamers.

8/ We are those strange people, almost unknown to the neighborhood. People, indulged in their own thoughts, sitting day after day before the computer, ransacking the net for something. We are not often out of home, just from time to time, only to go to the nearby radio shack, or to the usual bar to meet some of the few friends we have, or to meet a client, or to the backstreet druggist... or just for a little walk.

9/ We do not have many friends, only a few with whom we go to parties. Everybody else we know we know on the net. Our real friends are there, on the other side of the line. We know them from our favorite IRC channel, from the News-Groups, from the systems we hang-around.

10/ We are those who don't give a shit about what people think about us, we don't care what we look like or what people talk about us in our absence.

11/ The majority of us likes to live in hiding, being unknown to everybody except those few we must inevitably contact with.

12/ Others love publicity, they love fame. They are all known in the underground world. Their names are often heard there.

But we are all united by one thing - we are Cyberpunks.

13/ Society does not understand us, we are "weird" and "crazy" people in the eyes of the ordinary people who live far from information and free ideas. Society denies our way of thinking - a society, living, thinking and breathing in one and only one way - a cliché.

14/ They deny us for we think like free people, and free thinking is forbidden.

15/ The Cyberpunk has outer appearance, he is no motion. Cyberpunks are people, starting from the ordinary and known to nobody person, to the artist-technomaniac, to the musician, playing electronic music, to the superficial scholar.

16/ The Cyberpunk is no literature genre anymore, not even an ordinary subculture. The Cyberpunk is a stand-alone new culture, offspring of the new age. A culture that unites our common interests and views. We are a unit. We are Cyberpunks.

Society

1/ The Society which surrounds us is clogged with concervacy pulling everything and everybody to itself, while it sinks slowly in the quicksands of time.

2/ However doggedly some refuse to believe it, it is obvious that we live in a sick society. The so called reforms which our governments so adeptly use to boast, are nothing else but a little step forward, when a whole jump can be done.

3/ People fear the new and unknown. They prefer the old, the known and checked truths. They are afraid of what the new can bring to them. They are afraid that they can lose what they have.

4/ Their fear is so strong that it has proclaimed the revolutional a foe and a the free idea - its weapon. That's their fault.

5/ People must leave this fear behind and go ahead. What's the sense to stick to the little you have now when you can have more tomorrow. Everything they must do is stretch their hands and feel for the new; give freedom to thoughts, ideas, to words.

6/ For centuries each generation has been brought up is a same pattern. Ideals is what everybody follows. Individuality is forgotten. People think in a same way, following the cliché drilled in them in childhood, the cliché-education for all children. And, when someone dares defy authority, he is punished and given as a bad example. “Here is what happens to you when you express your own opinion and deny your teacher’s one”.

7/ Our society is sick and need to be healed. The cure is a change in the system...

The System

1/ The System. Centuries-old, existing on principles that hang no more today. A System that has not changed much since the day of its birth.

2/ The System is wrong.

3/ The System must impose its truth upon us so that it can rule. The government needs us follow it blindly. For this reason we live in an informational eclipse. When people acquire information other that that from the government, they cannot distinguish the right from the wrong. So the lie becomes a truth - a truth, fundamental to everything else. Thus the leaders control with lies and the ordinary people have no notion of what is true and follow the government blindly, trusting it.

4/ We fight for freedom of information. We fight for freedom of speech and press. For the freedom to express our thoughts freely, without being persecuted by the system.

5/ Even in the most-developed and ‘democratic’ countries, the system imposes misinformation. Even in the countries that pretend to be the cradle of free speech. Misinformation is one of the system’s main weapon. A weapon, they use very well.

6/ It is the Net that helps us spread the information freely. The Net, with no boundaries and information limit.

7/ Ours is yours, yours is ours.

8/ Everyone can share information, no restrictions.

9/ Encrypting of information is our weapon. Thus the words of revolution can spread uninterrupted, and the government can only guess.

10/ The Net is our realm, in the Net we are Kings.

11/ Laws. The world is changing, but the laws remain the same. The System is not changing, only a few details get redressed for the new time, but everything in the concept remains the same.

12/ We need new laws. Laws, fitting the times we live in, with the world that surrounds us. Not laws build on the basis of the past. Laws, build for today, laws, that will fit tomorrow.

13/ The laws that only refrain us. Laws that badly need revision.

The vision

1/ Some people do not care much about what happens globally. They care about what happens around them, in their micro-universe.

2/ These people can only see a dark future, for they can only see the life they live now.

3/ Others show some concern about the global affairs. They are interested in everything, in the future in perspective, in what is going to happen globally.

4/ They have a more optimistic view. To them the future is cleaner and more beautiful, for they can see into it and they see a more mature man, a wiser world.

5/ We are in the middle. We are interested in what happens now, but what in what's gonna happen tomorrow as well.

6/ We look in the net, and the net is growing wide and wider.

7/ Soon everything in this world will be swallowed by the net: from the military systems to the PC at home.

8/ But the net is a house of anarchy.

9/ It cannot be controlled and this is its power.

10/ Every man will be dependent on the net.

11/ The whole information will be there, locked in the abysses of zeros and ones.

12/ Who controls the net, controls the information.

13/ We will live in a mixture of past and present.

14/ The bad come from the man, and the good comes from technology.

15/ The net will control the little man, and we will control the net.

16/ For is you do not control, you will be controlled.

17/ The Information is POWER !

Where are we ?

1/ Where are we ?

2/ We all live in a sick world, where hatred is a weapon, and freedom - a dream.

3/ The world grows so slowly. It is hard for a Cyberpunk to live in an underdeveloped world, looking the people around him, seeing how wrongly they develop.

4/ We go ahead, they pull us back again. Society suppresses us. Yes, it suppresses the freedom of thought. With its cruel education programs in schools and universities. They drill in the children their view of things and every attempt to express a different opinion is denied and punished.

5/ Our kids grow educated in this old and still unchanged system. A system that tolerates no freedom of thought and demands a strict obedience to the rules...

6/ In what a world, how different from this, could we live now, if people were making jumps and not creeps.

7/ It is so hard to live in this world, Cyberpunk.

8/ It is as if time has stopped.

9/ We live on the right spot, but not in the right time.

10/ Everything is so ordinary, people are all the same, their deeds too. As if society feels an urgent need to live back in time.

11/ Some, trying to find their own world, the world of a Cyberpunk, and finding it, build their own world. Build in their thoughts, it changes reality, lays over it and thus they live in a virtual world. The thought-up, build upon reality.

12/ Others simply get accustomed to the world as it is. They continue to live in it, although they dislike it. They have no other choice but the bare hope that the world will go out of its hollow and will go ahead.

13/ What we are trying to do is change the situation. We are trying to adjust the present world to our needs and views. To use maximally what is fit and to ignore the trash. Where we can't, we just live in this world, like Cyberpunks, no matter how hard, when society fights us we fight back.

14/ We build our worlds in Cyberspace.

15/ Among the zeros and ones, among the bits of information.

16/ We build our community. The community of Cyberpunks.

Unite !

Fight for your rights !

CHAPTER

NINE

HACKTIVISMO DECLARATION (2001)

July 4th, 2001

Press Release

INTERNATIONAL BOOKBURNING IN PROGRESS

[July 4, 2001 - LUBBOCK, TX.] Free speech is under siege at the margins of the Internet. Quite a few countries are censoring access to the Web through DNS [Domain Name Service] filtering. This is a process whereby politically incorrect information is blocked by domain address – the name that appears before the dot com suffix. Others employ filtering which denies politically or sociallychallenging subject matter based on its content.

Hacktivismo and the CULT OF THE DEAD COW have decided that enough is too much. We are hackers and free speech advocates, and we are developing technologies to challenge state-sponsored censorship of the Internet.

Most countries use intimidation and filtering of one, kind or another including the Peoples Republic of China, Cuba, and many Islamic countries. Most claim to be blocking pornographic content. But the real reason is to prevent challenging content from spreading through repressive regimes. This includes information ranging from political opinion, "foreign" news, women's issues, academic and scholarly works, religious information, information regarding ethnic groups in disfavor, news of human rights abuses, documents which present drugs in a positive light, and gay and lesbian content, among others.

The capriciousness of state-sanctioned censorship is wide-ranging.

- In Zambia, the government has attempted to censor information revealing their plans for constitutional referendums.
- In Mauritania – as in most countries –, owners of cybercafes are required to supply government intelligence agents with copies of e-mail sent or received at their establishments.
- Even less draconian governments, like Malaysia, have threatened web-publishers for violating their publishing licenses by publishing frequent updates: *timely, relevant* information is

seen as a threat.

- South Korean's national security law forbids South Koreans from having any contact – including contact over the Internet – with their North Korean neighbors.
- Sri Lanka threatened news sites with possible revocation of their licenses if coverage of a presidential election campaign was not partial to the party of the outgoing president.

The risks of accessing or disseminating information are often great.

- In Ukraine, a decapitated body found near the village of Tarachtcha is believed to be that of Georgiy Gongadze, founder and editor of an on-line newspaper critical of the authorities.
- In August, 1998, eighteen year old Turk Emre Ersoz was found guilty of "insulting the national police" in an Internet forum after participating in a demonstration that was violently suppressed by the police. His ISP provided the authorities with his address.
- Journalist Miroslav Filipovic has the dubious distinction of having been the first Journalist accused of spying because of articles published on the Internet – in this case detailing the abuses of certain Yugoslav army units in Kosovo.

We are sickened by these egregious violations of information and human rights. The liberal democracies have talked a far better game than they've played on access to information. But hackers are not willing to watch the custodians of the International Convention on Civil and Political Rights and the Universal Declaration of Human Rights turn them into a mockery. We are willing to put our money where our mouth is.

Hacktivismo and the CULT OF THE DEAD COW are issuing the HACKTIVISMO DECLARATION as a declaration of outrage and a statement of intent. It is our Magna Carta for information rights. People have a right to reasonable access of otherwise lawfully published information.

If our leaders aren't prepared to defend the Internet, we are.

The Hacktivismo Declaration

assertions of liberty in support of an uncensored internet

DEEPLY ALARMED that state-sponsored censorship of the Internet is rapidly spreading with the assistance of transnational corporations,

TAKING AS A BASIS the principles and purposes enshrined in Article 19 of the Universal Declaration of Human Rights (UDHR) that states, *Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers*, and Article 19 of the International Covenant on Civil and Political Rights (ICCPR) that says,

1. Everyone shall have the right to hold opinions without interference.

2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.
3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:
    - For respect of the rights or reputations of others;
    - For the protection of national security or of public order, or of public health or morals.

RECALLING that some member states of the United Nations have signed the ICCPR, or have ratified it in such a way as to prevent their citizens from using it in courts of law,

CONSIDERING that, such member states continue to willfully suppress wide-ranging access to lawfully published information on the Internet, despite the clear language of the ICCPR that freedom of expression exists in all media,

TAKING NOTE that transnational corporations continue to sell information technologies to the world's most repressive regimes knowing full well that they will be used to track and control an already harried citizenry,

TAKING INTO ACCOUNT that the Internet is fast becoming a method of repression rather than an instrument of liberation,

BEARING IN MIND that in some countries it is a crime to demand the right to access lawfully published information, and of other basic human rights,

RECALLING that member states of the United Nations have failed to press the world's most egregious information rights violators to a higher standard,

MINDFUL that denying access to information could lead to spiritual, intellectual, and economic decline, the promotion of xenophobia and destabilization of international order,

CONCERNED that governments and transnationals are colluding to maintain the status quo,

DEEPLY ALARMED that world leaders have failed to address information rights issues directly and without equivocation,

RECOGNIZING the importance to fight against human rights abuses with respect to reasonable access to information on the Internet,

THEREFORE WE ARE CONVINCED that the international hacking community has a moral imperative to act, and we

DECLARE:

- THAT FULL RESPECT FOR HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS INCLUDES THE LIBERTY OF FAIR AND REASONABLE ACCESS TO INFORMATION, WHETHER BY SHORTWAVE RADIO, AIR MAIL, SIMPLE TELEPHONY, THE GLOBAL INTERNET, OR OTHER MEDIA.

- THAT WE RECOGNIZE THE RIGHT OF GOVERNMENTS TO FORBID THE PUBLICATION OF PROPERLY CATEGORIZED STATE SECRETS, CHILD PORNOGRAPHY, AND MATTERS RELATED TO PERSONAL PRIVACY AND PRIVILEDGE, AMONG OTHER ACCEPTED RESTRICTIONS. BUT WE OPPOSE THE USE OF STATE POWER TO CONTROL ACCESS TO THE WORKS OF CRITICS, INTELLECTUALS, ARTISTS, OR RELIGIOUS

FIGURES.

- THAT STATE SPONSORED CENSORSHIP OF THE INTERNET ERODES PEACEFUL AND

CIVILIZED COEXISTENCE, AFFECTS THE EXERCISE OF DEMOCRACY, AND ENDANGERS THE SOCIOECONOMIC DEVELOPMENT OF NATIONS.

- THAT STATE-SPONSORED CENSORSHIP OF THE INTERNET IS A SERIOUS FORM OF ORGANIZED AND SYSTEMATIC VIOLENCE AGAINST CITIZENS, IS INTENDED TO GENERATE CONFUSION AND XENOPHOPIA, AND IS A REPREHENSIBLE VIOLATION OF TRUST.
- THAT WE WILL STUDY WAYS AND MEANS OF CIRCUMVENTING STATE SPONSORED

CENSORSHIP OF THE INTERNET AND WILL IMPLEMENT TECHNOLOGIES TO CHALLENGE INFORMATION RIGHTS VIOLATIONS.

Issued July 4, 2001 by Hacktivismo and the CULT OF THE DEAD COW.

CHAPTER

TEN

A CYBERPUNK MANIFESTO V2.0 (CHRISTIAN AS. KIRTCHEV, 2003)

January 28, 2003

We are those with analog/digitalized soul. Cyberpunks. This is to be A second manifestation.

Cyberpunk

We are the neo men. Those new species of homosapiens, that were meant to be born at this age. The way we feel the world, includes the cyberspace as natural. Our first breath take in this world, at the moment of our birth, consisted the dense of electricity flow in wires, the machinery buzz surrounding the place, the data vibrations on information high-ways on air and cable. The way we take technology equals the way others take food, water and air. The data-space it self is the extra element of our environment. But we are that mutation, which is not only ordinary presense of technological tools. Everybody can learn and become to understand technology and new technology, but we are those, who have got it naturally. We are those that see reality in a different way. Our point of view shows more than ordinary people can see. They see only what is outside, but we see what is inside. That's what we are - realists with the glasses of dreamers. The way we think and look out to the environment, the blood that rushes through our veins, the air that fizzles in our brains - it is that mutation that distinguish us from others. Being a net-head, a technological-geek, computer nerd is not it, that's a sign. We are new; every and each area of the new being is something we take as homely and familiar. We know history and we know it is dead crawling for life. A Cyberpunk is just a label word, the content inside is us - the man and women who are different, most of us are out of understanding. You can call us crazy, mad, insane, strange, weirdos - that is the most close word in your dictionary to cover what you think of something never manifested before. Most of today's world is meeting a serious change. Some are sticking with the ruins, some are moving ahead letting go of the past. Society, which still does not want to refresh its self, have found the stability of its existence in the old-approved ways of accepting the ordinary and known. But we are none of them. Cyberpunks will always be refreshing. And even those who claim that Cyberpunk is dead, will be just the ones that can not see it reborn in the new wave of discoveries. You can't say that evolution has stopped, or can you ? "Cyberpunks", we are that evolving part. The rebel, who fights for its own survival. And we believe in our strength, because

our advantage is that of understanding new phenomenas, which are unclear to the rest, but part of our being.

Society

In times people did need someone to follow, that someone found it out to be easy to gain profit out of the controlled society and that someone begun to control with dirty tricks, getting away with it, because being the only authority, the controlling System was invincible. Society now remains under control and somelike enjoys it. Society denies us, because we are far more dangerous to their utopia, than the governments are. We do not belong to those society masses.

The System

The System. Centuries-old, existing on principles that hang no more today. A System that has not changed much since the day of its birth. The system is what controls you. That is the government, consisted of people who live separately from the social masses. Governments have not changed since the birth of social living in human beings. On the other hand the control is with corporations and there is a question who actually has the control. Is it the corporations who control the governments or they are both the same bureau ? However the system is what needs food and support to exist, that support is given by the masses of society, which are like hypnotized when coming to trust someone to have control over the personal life of each member of them. That support comes by, when the system shoots lies to the social mass. Lies are the truths they want us to believe in. The System must impose its truth upon us so that it can rule. The government needs us follow it blindly. Not only the governments, but the corporations, they dictate fashion styles, food choice and medication prices. They both, Governments and corporations are what the System is. A set of rules, filled in by the media. Only a blind and deaf would grant control over his life to someone, who's greed for money and power is covered by impression of Care, Support, Security and Stability. The system is afraid of chaos, but chaos is just the way they call the possibility of free choice. Where decentralized - people would be able to do better trough.

The Media

Television, radio and press is no longer the only source of information for the seeking man or for the sleeping one. The Internet is the new mediaspace, a space where information can be spread freely and therefore no one is living in informational eclipse now. Even where governments and businesses are trying to set restrictions and control over data flow - there are ways to gather that information, which can 'enlight'. And Information still remains power. We are witnessing the actual growth of our race. No longer informational barriers block the real potential sight and now people can demand more rights. Scientists are making discoveries, which when made public can no longer be so easily blocked for commercial or governmental use. Sad is when people stomped

down are willingness to demand what is granted to them. Now the media can awake people, transform societies. The media however have proven to be false or misleading, which confuses in truth filtering, that just rises Information's price.

Where are we?

We are those whose DNA is starting to form a new sight and sense - which will allow the future generations to comprehend cyberspace, the data-space. No heavy or implanted hardware devices will be able to fully replace what the nature is giving us. Mutations are taking place. The evolution granted us with a better set of tools to interact with the environmental changes. That is why we are Cyberpunks, neo human, electronic minds. We know that the Cyberspace is a mirror world, an enhancement, which hosts all past and present creations of man. The cyberspace is that invisible world where, human minds and thoughts merge with matter and takes form visible to the senses, through machines. The cyberspace seems like it always have existed there, here, everywhere - but only now we are making connections and discovering it - we are beginning to change. Cyberpunks - we are those who live in cyberspace and using the current technology is only the vessel to bring us on the other side.

We are the altered new race. Cyberpunks.

This is to be A second manifestation.

CHAPTER

ELEVEN

THE WIKILEAKS MANIFESTO (JULIAN ASSANGE, 2006)

Creator: Julian Assange is the editor in chief of Wikileaks, a "whistleblower website that publishes news leaks". (Wikipedia)

Purpose

To shift regime behaviour and create open governments.

Introduction

To radically shift regime behavior we must think clearly and boldly for if we have learned anything, it is that regimes do not want to be changed. We must think beyond those who have gone before us, and discover technological changes that embolden us with ways to act in which our forebears could not.

Firstly we must understand what aspect of government or neocorporatist behavior we wish to change or remove. Secondly we must develop a way of thinking about this behavior that is strong enough carry us through the mire of politically distorted language, and into a position of clarity. Finally must use these insights to inspire within us and others a course of ennobling, and effective action.

Conspiracy as governance in authoritarian regimes

Where details are known as to the inner workings of authoritarian regimes, wesee conspiratorial interactions among the political elite, not merely for preferment or favor within the regime, but as the primary planning methodologybehind maintaining or strengthening authoritarian power.

Authoritarian regimes create forces which oppose them by pushing against apeople's will to truth, love and self-realization. Plans which assist authoritarian rule, once discovered, induce further resistance. Hence such schemes are concealed by successful authoritarian powers until resistance

is futile or outweighed by the efficiencies of naked power. This collaborative secrecy, working to the detriment of a population, is enough to define their behavior as conspiratorial.

Thus it happens in matters of state; for knowing afar off (which it is only given a prudent man to do) the evils that are brewing, they are easily cured. But when, for want of such knowledge, they are allowed to grow until everyone can recognize them, there is nolonger any remedy to be found.

(The Prince, Niccolo Machiavelli [1469-1527])

Terrorist conspiracies as connected graphs

Pre and post 9/11 the Maryland Procurement Office and others have funded mathematicians to look at terrorist conspiracies as connected graphs (no mathematical background is needed to follow this article).

We extend this understanding of terrorist organizations and turn it on the likes of its paymasters; transforming it into a knife to dissect the conspiracies used to maintain authoritarian power structures.

We will use connected graphs as a way to apply our spatial reasoning abilities to political relationships. These graphs are very easy to visualize. First take some nails ("conspirators") and hammer them into a board at random. Then take twine ("communication") and loop it from nail to nail without breaking.

Call the twine connecting two nails a link. Unbroken twine means it is possible to travel from any nail to any other nail via twine and intermediary nails. Mathematicians say that this type of graph is connected.

Information flows from conspirator to conspirator. Not every conspirator trusts or knows every other conspirator even though all are connected. Some are on the fringe of the conspiracy, others are central and communicate with many conspirators and others still may know only two conspirators but be a bridge between important sections or groupings of the conspiracy.

Separating a conspiracy

If all conspirators are assassinated or all the links between them are destroyed, then a conspiracy no longer exists. This is usually requires more resources than we can deploy, so we ask our first question:

What is the minimum numberof links that must be cut to separate the conspiracy into two groups of equalnumber? (divide and conquer). The answer depends on the structure of theconspiracy. Sometimes there are no alternative paths for conspiratorial information to flow between conspirators, othertimes there are many. This is a useful and interesting characteristic of a conspiracy. For instance, by assassinating one "bridge" conspirator, it may be possible to split a conspiracy. But we want to say something about all conspiracies.

Some conspirators dance closer than others

Conspirators are often discerning, for some trust and depend each other, while others say little. Important information flows frequently through some links, trivial information through others. So we expand our simple connected graph model to include not only links, but their "importance".

Return to our board-and-nails analogy. Imagine a thick heavy cord between some nails and fine light thread between others. Call the importance, thickness or heaviness of a link its weight. Between conspirators that never communicate the weight is zero. The "importance" of communication passing through a link is difficult to evaluate apriori, since its true value depends on the outcome of the conspiracy. We simply say that the "importance" of communication contributes to the weight of a link in the most obvious way; the weight of a link is proportional to the amount of important communication flowing across it. Questions about conspiracies in general won't require us to know the weight of any link, since that changes from conspiracy to conspiracy

Conspiracies are cognitive devices. They are able to out think the same group of individuals acting alone

Conspiracies take information about the world in which they operate (the conspiratorial environment), pass through the conspirators and then act on the result. We can see conspiracies as a type of device that has inputs (information about the environment), a computational network (the conspirators and their links to each other) and outputs (actions intending to change or maintain the environment).

Decieving Conspiracies

Since a conspiracy is a type of cognitive device that acts on information acquired from its environment, distorting or restricting these inputs means acts based on them are likely to be misplaced. Programmers call this effect garbage in, garbage out.

Usually the effect runs the other way; it is conspiracy that is the agent of deception and information restriction. In the US, the programmer's aphorism is sometimes called "the Fox News effect"

What does a conspiracy compute? It computes the next action of the conspiracy

Now we ask the question: how effective is this device? Can we compare it to itself at different times? Is the conspiracy growing stronger or is it weakening?

This question asks us to compare two values over time.

Can we find a value that describes the power of a conspiracy?

We could count the number of conspirators, but that would not capture the key difference between a conspiracy and the individuals which comprise it. How do they differ? In a conspiracy, individuals conspire, while when isolated they do not. We can show most of this difference by adding up all the important communication (weights) between all the conspirators. Call this total conspiratorial power.

Total conspiratorial power

This number is an abstraction. The pattern of connections in a conspiracy is usually unique. But by looking at a value that is independent of the arrangement of connections between conspirators we can say something about conspiraciesin general.

If total conspiratorial power is zero, there is no conspiracy

If total conspiratorial power is zero, then clearly there is no information flow between the conspirators and hence no conspiracy.

A substantial increase or decrease in total conspiratorial power almost always means what we expect it to mean; an increase or decrease in the ability of the conspiracy to think, act and adapt.

Separating weighted conspiracies

We now return to our earlier idea about cleaving a conspiracy into halves. Then we looked at dividing a conspiracy into two groups of equal numbers by cutting the links between conspirators. Now we see that a more interesting idea is to split the total conspiratorial power in half. Since any isolated half can be viewed as a conspiracy in its own right we can continue separating indefinitely.

Throttling weighted conspiracies

Instead of cutting links between conspirators so as to separate a weighted conspiracy we can achieve a similar effect by throttling the conspiracy — constricting (reducing the weight of) those high weight links which bridge regions of equal total conspiratorial power.

Attacks on conspiratorial cognitive ability

A man in chains knows he should have acted sooner for his ability to influence the actions of the state is near its end. To deal with powerful conspiratorial actions we must think ahead and attack the process that leads to them since the actions themselves can not be dealt with.

We can deceive or blind a conspiracy by distorting or restricting the information available to it.

We can reduce total conspiratorial power via unstructured attacks on links or through throttling and separating.

A conspiracy sufficiently engaged in this manner is no longer able to comprehend its environment and plan robust action.

Traditional vs. modern conspiracies

Traditional attacks on conspiratorial power groupings, such as assassination, cut many high weight links. The act of assassination — the targeting of visible individuals, is the result of mental inclinations honed for the pre-literate societies

in which our species evolved. Literacy and the communications revolution have empowered conspirators with new means to conspire, increasing the speed of accuracy of the their interactions and thereby the maximum size a conspiracy may achieve before it breaks down.

Conspirators who have this technology are able to out conspire conspirators without it. For the same costs they are able to achieve a higher total conspiratorial power. That is why they adopt it.

For example, remembering Lord Halifax's words, let us consider two closely balanced and broadly conspiratorial power groupings, the US Democratic and Republican parties.

Consider what would happen if one of these parties gave up their mobile phones, fax and email correspondence — let alone the computer systems which manage their subscribes, donors, budgets, polling, call centres and direct mail campaigns?

They would immediately fall into an organizational stupor and lose to the other.

An authoritarian conspiracy that cannot think is powerless to preserve itself against the opponents it induces

When we look at an authoritarian conspiracy as a whole, we see a system of interacting organs, a beast with arteries and veins whose blood may be thickened and slowed until it falls, stupefied; unable to sufficiently comprehend and control the forces in its environment.

Later we will see how new technology and insights into the psychological motivations of conspirators can give us practical methods for preventing or reducing important communication between authoritarian conspirators, foment strong resistance to authoritarian planning and create powerful incentives for more humane forms of governance.

CHAPTER

TWELVE

A CYBERPUNK MANIFESTO V3.0 (2007)

Created by the current Cyberpunk people of 2007 AD

This is a sheet to design a new Cyberpunk manifesto to meet current/actual facts of 2007.

Introduction

"If you would have a thought controlled, wearable computer that you can fully customize, would that computer be an integral part of your consciousness ?" Hail to the ordinary nerds, who don't walk the streets often, being 24 hours a day online, phreaking, hacking, tweaking, etc. Being Cyberpunk, being other than normal people. Seeing what normal people just do not see. The digital life in biological senses of the mainframe, defined as the global world we life in. Labeled as nerd, weirdos, punks, freaks.... Technology freaks, that understand all systems, labeled as freaks/weirdos by society. Knowing more as common people do, hacking systems for fun, digitally overloading their mind with good information... etc... People like us, loving tech and having more friends online as in their own town/city, searching and learning technology to use it in other ways as it was meant to be, searching other means of system liberation, fighting against corporate oppression and censorship, freedom of information wars...

Long live the Cybero-revolution, long live the techno-anarchists, long live the hackers and the crackers...

Vision

The world "they" want to give us is a toxic ball of disease, a living corpse ravaged by pollution and malignant complacency. The world "they" want to give us is only meant to serve them, to keep themselves and their closest friends in power, to keep the human cattle complacent and ignorant of alternatives, to exploit and destroy the planet and to suffocate those who can change this world for the better. "They" want the masses to remain docile as sheep, so "they" create "entertainment" to brainwash the masses into a slumber. "They" will do anything to keep themselves in power

and suppress anything that may threaten it, including "eternal damnation" at the hands of their schizophrenic fantasy for "God" upon those who disagree.

Who are "they" ? "They" are the companies, countries and individuals who seek domination by addicting the human cattle to certain concepts: oil, drugs, religion, mind numbing "technology" and "popular culture". "They" are once powerful monopolies, defrocked and shattered for refusing to play fair, who are trying to resurrect their former corrupt glory by conspiring with Big Brother to rob us of our freedom and privacy. "They" are Internet-based companies with many tentacles who are buying every smaller company on the net looking to control all net content. "They" are mindless media companies who repeatedly vomit the same garbage for "entertainment" to numb the cattle into submission, and then use "copyright laws" to force Internet companies into oblivion and extend their control over the either. "They" are the actors, musicians, and artists who conspire with the media companies to spread the vomit, and then whore themselves for unworthy political causes. "They" are lunatics and perverts who ram their "theology" down our throats and expect us to have blind faith in their "God" even though their "God" is an outdated illusion. "They" are idiots, too stupid to walk and chew gum at the same time, who manage to become national leaders not by the will of the people, but by luck of circumstances and a political climate favorable for them. "They" are the reason why the world is in such bad shape, and why Cyberpunks are fighting back.

Cyberpunks refuse to be cattle, to jump on bandwagons, to be "one of the crowd". Cyberpunks see through the deception of modern culture, and they fight against it. Cyberpunks are the ones brave enough to deliver their message, to stand before the crowds, the government, the church and the industry and say "YOU ARE WRONG !" Cyberpunks accept the ostracism, because they already rejected "society's" ways for something better. Sometimes, it's a lonely fight, but Cyberpunks are in virtually every society, every country, and when they come together they are a force "they" must deal with.

Technology

Advancements in technology keeps us busy, keeping up-to-date with latest tech, almost like old Cyberpunk (pre 2000) turns real in 21th century terms, like 2006 and beyond. Bio-implants, VR wars, techno-information warfare. Future wars not fought with armies, but with computer systems. Current technology makes us Cyberpunks adapt to it, and even (like always) think one step beyond. Thinking 20 years in the future, creating new things with current technology, inventing other means to use a device, changing the original senses of an apparatus, to create a new complex electronic system, like hacking a phone, to turn it into a infra-red TV remote. IV. Politics

The war against global big time corporations, like Unilever, Shell, Microsoft, Google, Gillette and others, still rages on. Oppression by corporations using the puppet government as their worktool, to keep the people dumb, is not an option for Cyberpunks. We are anarchist/revolutionary anti-system people. We think for ourselves, and do not need some big guy/woman have to tell us what we may think. Fighting corporations, by hacking their systems, spreading viruses, mind-probes, DDOS attacks are now common in 2007. The things described in books like Neuromancer and other

Cyberpunk novels wrote (as being SF in those 80s/90s days), became todays reality. 2006+ years (21th century) gets more digital, and so do the governments, by creating Identification protocols to control their humans/people. Cyberpunks still rage war against ID protocols, by becoming unknown, nerds, with big brains, hacking things, etc. V. Sociology

Cyberpunks tend to be individuals that do not fit in any system or group. They are mostly very intelligent people, who see beyond the explicit. They witness the absurdity of the culture, parody it, mash and transform it. They use the tools of society to witness against it, to document its ignorant self-destructive tendencies and to indite it; sharing their knowledge to a select group, often cursed/hated by system folks. Having more friends on the digital internet/ultranet than in their own town/city. Sharing more knowledge digitally on the net-highway, than via embodied interaction. Spending more time to get more technological knowledge/information than to socialize is not uncommon.

History

Cyberpunks change their ideas, music, fashion, etc. from time to time. In the 80s, they had more synth oriented music, more old-fashion tech, etc. Now in 21th century, we have the global broadband internet, satellite mobile/GSM phones, VR, etc. We adapt to the tech, and the tech adapts to us. We are symbiotic, both biological as technological. Our Cyberpunk movement advances as time goes by. We learn, and we grow more powerful. As we are the soldiers of the technology frontier, not known by the system, but still alive. Cyberpunk, coined by Bruce Bethke and realized by William Gibson, that which once was Science Fiction is now turning into reality. When Cyberpunk fans get their hands on current tech, there will be a huge rise of Cyberpunk fans worldwide, who realize that Cyberpunk is not only not a fairytale, but is also a hi-tech movement that goes beyond the imagination of the original writers of Cyberpunk novels.

Freedom

Cyberpunks encourage the ultimate freedom of thought. Our quest for free access to all information has no boundaries. We are those who need to understand before accepting anything of the media feed. We are the bug in the source code, the probability of (r)evolution that threatens rigid systems. Nobody can control us, and that's why we're chased. We do not belong to the Society they want to create. Skilled programmers, utopian dreamers, artists or office workers, we are the ones who resist, living in the datanet where there's no law applicable, bypassing all the frontiers; cyberworld is where we belong. We're the children of cyberspace, we can do all we want, we look towards the future, trying to think of new technologies, spreading our ideas in the vast ocean of information. We aren't just the aggregators of information nor the static target audience nor the ultimate consumer. For us information is not an intangible stream of data. It as as much a part of us, as we are of it. It runs through our minds, just like blood and oxygen. To hold information or use it for oppression against us is like denying air to breathe. Yet we are also the ultimate brain surgeon, capable of removing any filth "they" would like to embedding us.

CHAPTER

THIRTEEN

GUERILLA OPEN ACCESS MANIFESTO (AARON SWARTZ, 2008)

Information is power. But like all power, there are those who want to keep it for themselves. The world's entire scientific and cultural heritage, published over centuries in books and journals, is increasingly being digitized and locked up by a handful of private corporations. Want to read the papers featuring the most famous results of the sciences? You'll need to send enormous amounts to publishers like Reed Elsevier.

There are those struggling to change this. The Open Access Movement has fought valiantly to ensure that scientists do not sign their copyrights away but instead ensure their work is published on the Internet, under terms that allow anyone to access it. But even under the best scenarios, their work will only apply to things published in the future. Everything up until now will have been lost.

That is too high a price to pay. Forcing academics to pay money to read the work of their colleagues? Scanning entire libraries but only allowing the folks at Google to read them? Providing scientific articles to those at elite universities in the First World, but not to children in the Global South? It's outrageous and unacceptable.

"I agree," many say, "but what can we do? The companies hold the copyrights, they make enormous amounts of money by charging for access, and it's perfectly legal — there's nothing we can do to stop them." But there is something we can, something that's already being done: we can fight back.

Those with access to these resources — students, librarians, scientists — you have been given a privilege. You get to feed at this banquet of knowledge while the rest of the world is locked out. But you need not — indeed, morally, you cannot — keep this privilege for yourselves. You have a duty to share it with the world. And you have: trading passwords with colleagues, filling download requests for friends.

Meanwhile, those who have been locked out are not standing idly by. You have been sneaking through holes and climbing over fences, liberating the information locked up by the publishers and sharing them with your friends.

But all of this action goes on in the dark, hidden underground. It's called stealing or piracy, as if sharing a wealth of knowledge were the moral equivalent of plundering a ship and murdering its

crew. But sharing isn't immoral — it's a moral imperative. Only those blinded by greed would refuse to let a friend make a copy.

Large corporations, of course, are blinded by greed. The laws under which they operate require it — their shareholders would revolt at anything less. And the politicians they have bought off back them, passing laws giving them the exclusive power to decide who can make copies.

There is no justice in following unjust laws. It's time to come into the light and, in the grand tradition of civil disobedience, declare our opposition to this private theft of public culture.

We need to take information, wherever it is stored, make our copies and share them with the world. We need to take stuff that's out of copyright and add it to the archive. We need to buy secret databases and put them on the Web. We need to download scientific journals and upload them to file sharing networks. We need to fight for Guerilla Open Access.

With enough of us, around the world, we'll not just send a strong message opposing the privatization of knowledge — we'll make it a thing of the past. Will you join us?

Aaron Swartz

July 2008, Eremo, Italy

CHAPTER

FOURTEEN

A BIOPUNK MANIFESTO (MEREDITH L. PATTERSON, 2010)

January 20, 2010

Scientific literacy is necessary for a functioning society in the modern age. Scientific literacy is not science education. A person educated in science can understand science; a scientifically literate person can *do* science. Scientific literacy empowers everyone who possesses it to be active contributors to their own health care, the quality of their food, water, and air, their very interactions with their own bodies and the complex world around them.

Society has made dramatic progress in the last hundred years toward the promotion of education, but at the same time, the prevalence of citizen science has fallen. Who are the twentieth-century equivalents of Benjamin Franklin, Edward Jenner, Marie Curie or Thomas Edison ? Perhaps Steve Wozniak, Bill Hewlett, Dave Packard or Linus Torvalds - but the scope of their work is far narrower than that of the natural philosophers who preceded them. Citizen science has suffered from a troubling decline in diversity, and it is this diversity that biohackers seek to reclaim. We reject the popular perception that science is only done in million-dollar university, government, or corporate labs; we assert that the right of freedom of inquiry, to do research and pursue understanding under one's own direction, is as fundamental a right as that of free speech or freedom of religion. We have no quarrel with Big Science; we merely recall that Small Science has always been just as critical to the development of the body of human knowledge, and we refuse to see it extinguished.

Research requires tools, and free inquiry requires that access to tools be unfettered. As engineers, we are developing low-cost laboratory equipment and off-the-shelf protocols that are accessible to the average citizen. As political actors, we support open journals, open collaboration, and free access to publicly-funded research, and we oppose laws that would criminalize the possession of research equipment or the private pursuit of inquiry.

Perhaps it seems strange that scientists and engineers would seek to involve themselves in the political world - but biohackers have, by necessity, committed themselves to doing so. The law-makers who wish to curtail individual freedom of inquiry do so out of ignorance and its evil twin, fear - the natural prey and the natural predator of scientific investigation, respectively. If we can prevail against the former, we will dispel the latter. As biohackers it is our responsibility to act as emissaries of science, creating new scientists out of everyone we meet. We must communicate not only the value of our research, but the value of our methodology and motivation, if we are to drive

ignorance and fear back into the darkness once and for all.

We the biopunks are dedicated to putting the tools of scientific investigation into the hands of anyone who wants them. We are building an infrastructure of methodology, of communication, of automation, and of publicly available knowledge.

Biopunks experiment. We have questions, and we don't see the point in waiting around for someone else to answer them. Armed with curiosity and the scientific method, we formulate and test hypotheses in order to find answers to the questions that keep us awake at night. We publish our protocols and equipment designs, and share our bench experience, so that our fellow biopunks may learn from and expand on our methods, as well as reproducing one another's experiments to confirm validity. To paraphrase Eric Hughes, "our work is free for all to use, worldwide. We don't much care if you don't approve of our research topics". We are building on the work of the Cypherpunks who came before us to ensure that a widely dispersed research community cannot be shut down.

Biopunks deplore restrictions on independent research, for the right to arrive independently at an understanding of the world around oneself is a fundamental human right. Curiosity knows no ethnic, gender, age, or socioeconomic boundaries, but the opportunity to satisfy that curiosity all too often turns on economic opportunity, and we aim to break down that barrier. A thirteen-year-old kid in South Central Los Angeles has just as much of a right to investigate the world as does a university professor. If thermocyclers are too expensive to give one to every interested person, then we'll design cheaper ones and teach people how to build them.

Biopunks take responsibility for their research. We keep in mind that our subjects of interest are living organisms worthy of respect and good treatment, and we are acutely aware that our research has the potential to affect those around us. But we reject outright the admonishments of the precautionary principle, which is nothing more than a paternalistic attempt to silence researchers by inspiring fear of the unknown. When we work, it is with the betterment of the community in mind - and that includes our community, your community, and the communities of people that we may never meet. We welcome your questions, and we desire nothing more than to empower you to discover the answers to them yourselves.

The biopunks are actively engaged in making the world a place that everyone can understand. Come, let us research together.

CHAPTER

FIFTEEN

THE HARDWARE HACKER MANIFESTO (CODY BROCIOUS, 2010)

Preface

This post is a long time in coming. For years we've been seeing an active fight against the right to utilize hardware the way the owner wishes to use it, but it wasn't until this week that it got personal, driving me to write this. Please, share this far and wide; hardware hacking is essential and we're losing ground to those who would love to see it done away with.

The Hardware Hacker Manifesto

My name is Cody and I'm a hardware hacker. It started at the age of five, taking apart a toy computer to figure out how it worked. I live for that thrill of discovery and rush of power that I feel when I figure out what makes something tick, then figure out how to bend it to my will. This has led to me hacking everything from game consoles to phones.

It used to be that this was what people did: if something was wrong with a device, it was acceptable to take it apart, figure out how it worked, and fix whatever was wrong with it. That's no longer the case; we're still there – in growing numbers, to boot – but what's changed is that it's no longer acceptable. *As companies have made devices more and more locked down, making hardware hacking even more important than ever, there's a growing segment of the population that believes we're pirates. Who are we to modify these devices against the company's will?*

It all comes down to one simple question: *once you've purchased something, do you own it?* While this may seem like a silly question, it's the entire crux of the argument for hardware hacking. *If you believe that the purchaser owns the good, then they have the right to do with it what they want.*

I exercise that right on a daily basis, whether with my jailbroken phone, my Wii running homebrew media player software, or – now – my hacked brain-computer interface. The last case is interesting, because it's the first time I've ever been called a pirate by a representative of the company producing the hardware I hacked:

> Piracy is a vexed question but in its worst form it is still basically *taking what someone has spent a lot of time and money on, and denying them some or all of the rewards for doing it.* If the developer is being reasonable about it then it's tough to justify piracy. It costs a lot to get something developed and into the market, and next to nothing to copy or crack it. It discourages people from taking the risks in the first place, and we're all the poorer for the things that didn't get done because they would be too easy to steal.

In this case, I purchased a brain-computer interface outright, then proceeded to reverse-engineer it and release details of how to communicate with it. In the week since I released this, I've been called a selfish pirate more than I'd like to recall. All of this because I decided to exercise my right to use my hardware the way I want.

Why should we have to ask permission to use what we've spent our money on. Let's see an absurd extension of this logic: Why should Ford lose out on the rewards of building the car, when you don't go to an authorized service station to get your oil changed?

Let me make this crystal clear: *once you sell me something, I will do whatever I want with it. Period. I'll take it apart, I'll patch it, I'll make it do things you never imagined, and I'll tell everyone who will listen exactly how to do the same. It's mine, and every device you've purchased is yours too; don't let anyone tell you otherwise.*

I am a hardware hacker and this is my manifesto. We've always been here and we will always be here; you can fight to keep us out, but we'll fight even harder to get back in. I assure you we'll win.

Happy hacking,

Cody Brocious (Daeken)

CHAPTER

SIXTEEN

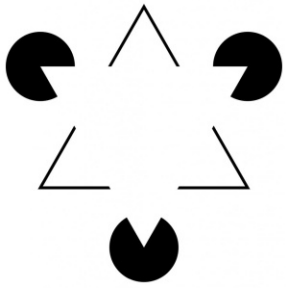
A CYBERPUNK MANIFESTO (TRANSCEIVERFREQ, 2011)

August 20, 2011

"Information is information, not matter or energy."

– Norbert Wiener

The Kanisza Triangle



Created in 1976-79 by Gaetano Kanizsa, Italian psychologist and artist, founder of the Institute of Psychology of Trieste. An optical illusion, comprised of three black circles with equal wedges cut out of them facing the center point and three black angles on a white background. The illusory contours defined by these shapes creates a white triangle in the liminal negative space. This is a metaphor for "cyberspace" in that it is defined by illusory boundaries and yet is intangible.

The "idea" of the triangle exists. But in actuality it is defined by the interaction of the shapes and our mind's perception. This is the simplest symbol as yet I have found to describe "cyberspace".

READ

- Wikipedia - Cybernetics.
- The Human Use of Human Beings - Norbert Wiener, 1948.

- Cybernetics: Or the Control and Communication in the Animal and the Machine - Norbert Wiener, 1950.
- Does Technology Drive History? The Dilemma of Technological Determinism - Merritt Roe Smith, Leo Marx, 1994.
- Human-Built World: How to Think about Technology and Culture - Thomas P. Hughes, 2004.
- Cyberspace: First Steps - Michael Benedikt, 1991.
- Neuromancer - William Gibson.
- Fear of Knowledge: Against Relativism and Constructivism - Paul Boghossian, 2006.
- Cyborg: Digital Destiny and Human Possibility in the Age of the Wearable Computer - Steve Mann, 2001.
- Simulacra and Simulation - Jean Baudrillard, 1981.

WE ASSERT:

- information "wants to be free" and should be free.
- information raises quality of living.
- information maturates autonomy.
- not only does information "want to be free" but has an unstoppable and natural proclivity to become free.
- information will maintain it's own freedom by means of inaction or action of liberation by external forces.
- all previous wars are based partially if not entirely in the exchange of, suppression of or discovery of many forms of information.
- necessity breeds invention and the world has a dire necessity for change.
- the human/machine network is the victory of information.
- the internet is at the same anational and a nation unto itself.
- cyberspace exists between the nodes of the network. It is the meta-space defined by the exchange of information between users.
- the internet defines cyberspace by it's own expanding and mutable boundaries.
- the movements of cyberspace encroach on meatspace. In this way the net is always moving into the real world.
- the world is constantly in a state of revolution.

- the web is the world.

WE:

- are native to the net.
- are linked in anonymity and justified in it daily.
- are the network itself. It is defined by our action and inaction.
- are without a born nation and free as such.
- expect more from our generation than the ones before us.
- choose freedom as our nationality and stand alone nodality as our native language.
- choose speed as our method and flux as our driving force.
- reject governance, nations, religion and corporate entities. we reject their stranglehold on the human mind and condition.
- believe "the street" defines it's own use for technology.
- believe there is no such thing as too much information.
- believe all should have access to the network and the data.
- believe access to computing devices - and anything that teaches something about the way the world works - should be unlimited.
- stand against established forms of hierarchies and promote decentralization.
- promote the exceeding of limitations both personal and shared.
- are the technology. the internet is made of meat.
- are not the dejected teenage rebels described by our forebears.
- do not define ourselves by the technology we use but what we use it for.
- believe in the burning presence of the future.

ADVICE (Ø):

- when they call it "paradox", they're hiding the oxygen.
- there's a special quality in a good translation that can never be captured in the original.
- travel light, stay alert and eat what you kill.
- always look at the underside first.

- when you find truth, pass it on, quick, before they bury it under money.
- “the revolution” devours it’s young.
- to contact a human opereator, press “0”.

CHAPTER

SEVENTEEN

ONE HALF A MANIFESTO (JARON LANIER, 2011)

Introduction

Jon Brockman

Jaron Lanier, a pioneer in virtual reality, musician, and currently the lead scientist for the National Tele-Immersion Initiative, worries about the future of human culture more than the gadgets. In his "Half a Manifesto" he takes on those he terms the "cybernetic totalists" who do not seem "to not have been educated in the tradition of scientific skepticism. I understand why they are intoxicated. There IS a compelling simple logic behind their thinking and elegance in thought is infectious."

"There is a real chance that evolutionary psychology, artificial intelligence, Moore's Law fetishizing, and the rest of the package, will catch on in a big way, as big as Freud or Marx did in their times. Or bigger, since these ideas might end up essentially built into the software that runs our society and our lives. If that happens, the ideology of cybernetic totalist intellectuals will be amplified from novelty into a force that could cause suffering for millions of people.

"The greatest crime of Marxism wasn't simply that much of what it claimed was false, but that it claimed to be the sole and utterly complete path to understanding life and reality. Cybernetic eschatology shares with some of history's worst ideologies a doctrine of historical predestination. There is nothing more gray, stultifying, or dreary than a life lived inside the confines of a theory. Let us hope that the cybernetic totalists learn humility before their day in the sun arrives."

Read on.....

One Half a Manifesto

...And so I'll here share my thoughts with the respondents of edge.org, many of whom are, as much as anyone, responsible for this revolution, one which champions the assent of cybernetic technology as culture.

The dogma I object to is composed of a set of interlocking beliefs and doesn't have a generally accepted overarching name as yet, though I sometimes call it "cybernetic totalism". It has the

potential to transform human experience more powerfully than any prior ideology, religion, or political system ever has, partly because it can be so pleasing to the mind, at least initially, but mostly because it gets a free ride on the overwhelmingly powerful technologies that happen to be created by people who are, to a large degree, true believers.

Edge readers might be surprised by my use of the word "cybernetic". I find the word problematic, so I'd like to explain why I chose it. I searched for a term that united the diverse ideas I was exploring, and also connected current thinking and culture with earlier generations of thinkers who touched on similar topics. The original usage of "cybernetic", as by Norbert Weiner, was certainly not restricted to digital computers. It was originally meant to suggest a metaphor between marine navigation and a feedback device that governs a mechanical system, such as a thermostat. Weiner certainly recognized and humanely explored the extraordinary reach of this metaphor, one of the most powerful ever expressed.

I hope no one will think I'm equating *Cybernetics* and what I'm calling *Cybernetic Totalism*. The distance between recognizing a great metaphor and treating it as the only metaphor is the same as the distance between humble science and dogmatic religion.

Here is a partial roster of the component beliefs of cybernetic totalism:

1. That cybernetic patterns of information provide the ultimate and best way to understand reality.
2. That people are no more than cybernetic patterns.
3. That subjective experience either doesn't exist, or is unimportant because it is some sort of ambient or peripheral effect.
4. That what Darwin described in biology, or something like it, is in fact also the singular, superior description of all creativity and culture.
5. That qualitative as well as quantitative aspects of information systems will be accelerated by Moore's Law.
6. And finally, the most dramatic: That biology and physics will merge with computer science (becoming biotechnology and nanotechnology), resulting in life and the physical universe becoming mercurial; achieving the supposed nature of computer software. Furthermore, all of this will happen very soon! Since computers are improving so quickly, they will overwhelm all the other cybernetic processes, like people, and will fundamentally change the nature of what's going on in the familiar neighborhood of Earth at some moment when a new "criticality" is achieved- maybe in about the year 2020. To be a human after that moment will be either impossible or something very different than we now can know.

During the last twenty years a stream of books has gradually informed the larger public about the belief structure of the inner circle of Digerati, starting softly, for instance with Godel, Escher, Bach, and growing more harsh with recent entries such as *The Age of Spiritual Machines* by Ray Kurtzweil.

Recently, public attention has finally been drawn to #6, the astonishing belief in an eschatological cataclysm in our lifetimes, brought about when computers become the ultra-intelligent masters of

physical matter and life. So far as I can tell, a large number of my friends and colleagues believe in some version of this immanent doom.

I am quite curious who, among the eminent thinkers who largely accept some version of the first five points, are also comfortable with the sixth idea, the eschatology. In general, I find that technologists, rather than natural scientists, have tended to be vocal about the possibility of a near-term criticality. I have no idea, however, what figures like Richard Dawkins or Daniel Dennett make of it. Somehow I can't imagine these elegant theorists speculating about whether nanorobots might take over the planet in twenty years. It seems beneath their dignity. And yet, the eschatologies of Kurtzweil, Moravec, and Drexler follow directly and, it would seem, inevitably, from an understanding of the world that has been most sharply articulated by none other than Dawkins and Dennett. Do Dawkins, Dennett, and others in their camp see some flaw in logic that insulates their thinking from the eschatological implications? The primary candidate for such a flaw as I see it is that cyber-armageddonists have confused ideal computers with real computers, which behave differently. My position on this point can be evaluated separately from my admittedly provocative positions on the first five points, and I hope it will be.

Why this is only "one half of a manifesto": I hope that readers will not think that I've sunk into some sort of glum rejection of digital technology. In fact, I'm more delighted than ever to be working in computer science and I find that it's rather easy to adopt a humanistic framework for designing digital tools. There is a lovely global flowering of computer culture already in place, arising for the most independently of the technological elites, which implicitly rejects the ideas I am attacking here. A full manifesto would attempt to describe and promote this positive culture.

I will now examine the five beliefs that must precede acceptance of the new eschatology, and then consider the eschatology itself.

Here we go:

Cybernetic Totalist Belief #1

That cybernetic patterns of information provide the ultimate and best way to understand reality.

There is an undeniable rush of excitement experienced by those who first are able to perceive a phenomenon cybernetically. For example, while I believe I can imagine what a thrill it must have been to use early photographic equipment in the 19th century, I can't imagine that any outsider could comprehend the sensation of being around early computer graphics technology in the nineteen-seventies. For here was not merely a way to make and show images, but a metaframework that subsumed all possible images. Once you can understand something in a way that you can shove it into a computer, you have cracked its code, transcended any particularity it might have at a given time. It was as if we had become the Gods of vision and had effectively created all possible images, for they would merely be reshufflings of the bits in the computers we had before us, completely under our command.

The cybernetic impulse is initially driven by ego (though, as we shall see, in its end game, which has not yet arrived, it will become the enemy of ego). For instance, Cybernetic Totalists look at culture and see "memes", or autonomous mental tropes that compete for brain space in humans

somewhat like viruses. In doing so they not only accomplish a triumph of "campus imperialism", placing themselves in an imagined position of superior understanding vs. the whole of the humanities, but they also avoid having to pay much attention to the particulars of culture in a given time and place. Once you have subsumed something into its cybernetic reduction, any particular reshuffling of its bits seems unimportant.

Belief #1 appeared on the stage almost immediately with the first computers. It was articulated by the first generation of computer scientists; Weiner, Shannon, Turing. It is so fundamental that it isn't even stated anymore within the inner circle. It is so well rooted that it is difficult for me to remove myself from my all-encompassing intellectual environment long enough to articulate an alternative to it.

An alternative might be this: A cybernetic model of a phenomenon can never be the sole favored model, because we can't even build computers that conform to such models. Real computers are completely different from the ideal computers of theory. They break for reasons that are not always analyzable, and they seem to intrinsically resist many of our endeavors to improve them, in large part due to legacy and lock-in, among other problems. We imagine "pure" cybernetic systems but we can only prove we know how to build fairly dysfunctional ones. We kid ourselves when we think we understand something, even a computer, merely because we can model or digitize it.

There is also an epistemological problem that bothers me, even though my colleagues by and large are willing to ignore it. I don't think you can measure the function or even the existence of a computer without a cultural context for it. I don't think Martians would necessarily be able to distinguish a Macintosh from a space heater.

The above disputes ultimately turn on a combination of technical arguments about information theory and philosophical positions that largely arise from taste and faith.

So I try to augment my positions with pragmatic considerations, and some of these will begin to appear in my thoughts on...

Belief #2: That people are no more than cybernetic patterns

Every cybernetic totalist fantasy relies on artificial intelligence. It might not immediately be apparent why such fantasies are essential to those who have them. If computers are to become smart enough to design their own successors, initiating a process that will lead to God-like omniscience after a number of ever swifter passages from one generation of computers to the next, someone is going to have to write the software that gets the process going, and humans have given absolutely no evidence of being able to write such software. So the idea is that the computers will somehow become smart on their own and write their own software.

My primary objection to this way of thinking is pragmatic: It results in the creation of poor quality real world software in the present. Cybernetic Totalists live with their heads in the future and are willing to accept obvious flaws in present software in support of a fantasy world that might never appear.

The whole enterprise of Artificial Intelligence is based on an intellectual mistake, and continues

to expensively turn out poorly designed software as it is re-marketed under a new name for every new generation of programmers. Lately it has been called “intelligent agents”. Last time around it was called “expert systems”.

Let’s start at the beginning, when the idea first appeared. In Turing’s famous thought experiment, a human judge is asked to determine which of two correspondents is human, and which is machine. If the judge cannot tell, Turing asserts that the computer should be treated as having essentially achieved the moral and intellectual status of personhood.

Turing’s mistake was that he assumed that the only explanation for a successful computer entrant would be that the computer had become elevated in some way; by becoming smarter, more human. There is another, equally valid explanation of a winning computer, however, which is that the human had become less intelligent, less human-like.

An official Turing Test is held every year, and while the substantial cash prize has not been claimed by a program as yet, it will certainly be won sometime in the coming years. My view is that this event is distracting everyone from the real Turing Tests that are already being won. Real, though miniature, Turing Tests are happening all the time, every day, whenever a person puts up with stupid computer software.

For instance, in the United States, we organize our financial lives in order to look good to the pathetically simplistic computer programs that determine our credit ratings. We borrow money when we don’t need to, for example, to feed the type of data to the programs that we know they are programmed to respond to favorably.

In doing this, we make ourselves stupid in order to make the computer software seem smart. In fact we continue to trust the credit rating software even though there has been an epidemic of personal bankruptcies during a time of very low unemployment and great prosperity.

We have caused the Turing test to be passed. There is no epistemological difference between artificial intelligence and the acceptance of badly designed computer software.

My argument can be taken as an attack against the belief in eventual computer sentience, but a more sophisticated reading would be that it argues for a pragmatic advantage to holding an anti-AI belief (because those who believe in AI are more likely to put up with bad software). More importantly, I’m hoping the reader can see that Artificial Intelligence is better understood as a belief system instead of a technology.

The AI belief system is a direct explanation for a lot of bad software in the world, such as the annoying features in Microsoft Word and PowerPoint that guess at what the user really wanted to type. Almost every person I have asked has hated these features, and I have never met an engineer at Microsoft who could successfully turn the features completely off on my computer (running Mac Office ‘98), even though that is supposed to be possible.

Belief #3: That subjective experience either doesn't exist, or is unimportant because it is some sort of ambient or peripheral effect

There is a new moral struggle taking shape over the question of when "souls" should be attributed to perceived patterns in the world.

Computers, genes, and the economy are some of the entities which appear to Cybernetic Totalists to populate reality today, along with human beings. It is certainly true that we are confronted with non-human and meta-human actors in our lives on a constant basis and these players sometimes appear to be more powerful than us.

So, the new moral question is: Do we make decisions solely on the basis of the needs and wants of "traditional" biological humans, or are any of these other players deserving of consideration?

I propose to make use of a simple image to consider the alternative points of view. This image is of an imaginary circle that each person draws around him/herself. We shall call this "the circle of empathy". On the inside of the circle are those things that are considered deserving of empathy, and the corresponding respect, rights, and practical treatment as approximate equals. On the outside of the circle are those things that are considered less important, less alive, less deserving of rights. (This image is only a tool for thought, and should certainly not be taken as my complete model for human psychology or moral dilemmas.) Roughly speaking, liberals hope to expand the circle, while conservatives wish to contract it.

Should computers, perhaps at some point in the future, be placed inside the "circle of empathy"? The idea that they should is held close to the heart by the Cybernetic Totalists, who populate the elite technological academies and the businesses of the "new economy".

There has often been a tender, but unintended humor in the argumentative writing by advocates of eventual computer sentience. The quest to rationally prove the possibility of sentience in a computer (or perhaps in the internet), is the modern version of proving God's existence. As is the case with the history of God, a great many great minds have spent excesses of energy on this quest, and eventually a cybernetically-minded 21st century version of Kant will appear in order to present a tedious "proof" that such adventures are futile. I simply don't have the patience to be that person.

As it happens, in the last five years or so arguments about computer sentience have started to subside. The idea is assumed to be true by most of my colleagues; for them, the argument is over. It is not over for me.

I must report that back when the arguments were still white hot, it was the oddest feeling to debate someone like Cybernetic Totalist philosopher Daniel Dennett. He would state that humans were simply specialized computers, and that imposing some fundamental ontological distinction between humans and computers was a sentimental waste of time.

"But don't you experience your life? Isn't experience something apart from what you could measure in a computer?", I would say. My debating opponent would typically say something like "Experience is just an illusion created because there is one part of a machine (you) that needs to create a model of the function of the rest of the machine- that part is your experiential center."

I would retort that experience is the only thing that isn't reduced by illusion. That even illusion is

itself experience. A correlate, alas, is that experience is the very thing that can only be experienced. This lead me into the odd position of publicly wondering if some of my opponents simply lacked internal experience. (I once suggested that among all humanity, one could only definitively prove a lack of internal experience in certain professional philosophers.)

In truth, I think my perennial antagonists do have internal experience but choose not to admit it in public for a variety of reasons, most often because they enjoy annoying others.

Another motivation might be the "Campus Imperialism" I invoked earlier. Representatives of each academic discipline occasionally assert that they possess a most privileged viewpoint that somehow contains or subsumes the viewpoints of their rivals. Physicists were the alpha-academics for much of the twentieth century, though in recent decades "postmodern" humanities thinkers managed to stage something of a comeback, at least in their own minds. But technologists are the inevitable winners of this game, as they change the very components of our lives out from under us. It is tempting to many of them, apparently, to leverage this power to suggest that they also possess an ultimate understanding of reality, which is something quite apart from having tremendous influence on it.

Another avenue of explanation might be neo-Freudian, considering that the primary inventor of the idea of machine sentience, Alan Turing, was such a tortured soul. Turing died in an apparent suicide brought on by his having developed breasts as a result of enduring a hormonal regimen intended to reverse his homosexuality. It was during this tragic final period of his life that he argued passionately for machine sentience, and I have wondered whether he was engaging in a highly original new form of psychological escape and denial; running away from sexuality and mortality by becoming a computer.

At any rate, what is peculiar and revealing is that my cybernetic totalist friends confuse the viability of a perspective with its triumphant superiority. It is perfectly true that one can think of a person as a gene's way of propagating itself, as per Dawkins, or as a sexual organ used by machines to make more machines, as per McLuhan (as quoted in the masthead of every issue of Wired Magazine), and indeed it can even be beautiful to think from these perspectives from time to time. As the anthropologist Steve Barnett pointed out, however, it would be just as reasonable to assert that "A person is shit's way of making more shit."

So let us pretend that the new Kant has already appeared and done his/her inevitable work. We can then say: The placement of one's circle of empathy is ultimately a matter of faith. We must accept the fact that we are forced to place the circle somewhere, and yet we cannot exclude extra-rational faith from our choice of where to place it.

My personal choice is to not place computers inside the circle. In this article I am stating some of my pragmatic, esthetic, and political reasons for this, though ultimately my decision rests on my particular faith. My position is unpopular and even resented in my professional and social environment.

Belief #4: That what Darwin described in biology, or something like it, is in fact also the singular, superior description of all possible creativity and culture.

Cybernetic totalists are obsessed with Darwin, for he described the closest thing we have to an algorithm for creativity. Darwin answers what would otherwise be a big hole in the Dogma: How will cybernetic systems be smart and creative enough to invent a post-human world? In order to embrace an eschatology in which the computers become smart as they become fast, some kind of Deus ex Machina must be invoked, and it has a beard.

Unfortunately, in the current climate I must take a moment to state that I am not a creationist. I am in this essay criticizing what I perceive to be intellectual laziness; a retreat from trying to understand problems and instead hope for software that evolves itself. I am not suggesting that Nature required some extra element beyond natural evolution to create people.

I also don't meant to imply that there is a completely unified block of people opposing me, all of whom think exactly the same thoughts. There are in fact numerous variations of Darwinian eschatology. Some of the most dramatic renditions have not come from scientists or engineers, but from writers such as Kevin Kelly and Robert Wright, who have become entranced with broadened interpretations of Darwin. In their works, reality is perceived as a big computer program running the Darwin algorithm, perhaps headed towards some sort of Destiny.

Many of my technical colleagues also see at least some form of a causal arrow in evolution pointing to an ever greater degree of a hard-to-characterize something as time passes. The words used to describe that something are themselves hard to define; It is said to include increased complexity, organization, and representation. To computer scientist Danny Hillis, people seem to have more of such a thing than, say, single cell organisms, and it is natural to wonder if perhaps there will someday be some new creatures with even more of it than is found in people. (And of course the future birth of the new "more so" species is usually said to be related to computers.) Contrast this perspective with that of Stephen Jay Gould who argues in Full House that if there's an arrow in evolution, it's towards greater diversity over time, and we unlikely creatures known as humans, having arisen as one tiny manifestation of a massive, blind exploration of possible creatures, only imagine that the whole process was designed to lead to us.

There is no harder idea to test than an anthropic one, or its refutation. I'll admit that I tend to side with Gould on this one, but it is more important to point out an epistemological conundrum that should be considered by Darwinian eshatologists. If mankind is the measure of evolution thus far, then we will also be the measure of successor species that might be purported to be "more evolved" than us. We'll have to anthropomorphize in order to perceive this "greater than human" form of life, especially if it exists inside an information space such as the internet.

In other words, we'll be as reliable in assessing the status of the new super-beings as we are in assessing the traits of pet dogs in the present. We aren't up to the task. Before you tell me that it will be overwhelmingly obvious when the superintelligent new cyber-species arrives, visit a dog show. Or a gathering of people who believe they have been abducted by aliens in UFOs. People are demonstrably insane when it comes to assessing non-human sentience.

There is, however, no question that the movement to interpret Darwin more broadly, and in particular to bring him into psychology and the humanities has offered some luminous insights that will someday be part of an improved understanding of nature, including human nature. I enjoy this stream of thought on various levels. It's also, let's admit it, impossible for a computer scientist not to be flattered by works which place what is essentially a form of algorithmic computation at the center of reality, and these thinkers tend to be confident and crisp and to occasionally have new and good ideas.

And yet I think cybernetic totalist Darwinians are often brazenly incompetent at public discourse and may be in part responsible, however unintentionally, for inciting a resurgence of fundamentalist religious reaction against rational biology. They seem to come up with takes on Darwin that are calculated to not only antagonize, but alienate those who don't share their views. Declarations from the "nerdiest" of the evolutionary psychologists can be particularly irritating.

One example that comes to mind is the recent book, The Natural History of Rape by Randy Thornhill and Craig T. Palmer, declaring that rape is a "natural" way to spread genes around. We have seen all sorts of propositions tied to Darwin with a veneer of rationality. In fact you can argue almost any position using a Darwinian strategy.

For instance, Thornhill and Palmer go so far as to suggest that those who disagree with them are victims of evolutionary programming for the need to believe in a fictitious altruism in human nature. The authors say it is altruistic-seeming to not believe in evolutionary psychology, because such skepticism makes a public display of one's belief in brotherly love. Displays of altruism are said to be attractive, and therefore to improve one's ability to lure mates. By this logic, evolutionary psychologists should soon breed themselves out of the population. Unless they resort to rape.

At any rate, Darwin's idea of evolution was of a different order than scientific theories that had come before, for at least two reasons. The most obvious and explosive reason was that the subject matter was so close to home. It was a shock to the 19th century mind to think of animals as blood relatives, and that shock continues to this day.

The second reason is less often recognized. Darwin created a style of reduction that was based on emergent principles instead of underlying laws (though some recent speculative physics theories can have a Darwinian flavor). There isn't any evolutionary "force" analogous to, say, electromagnetism. Evolution is a principle that can be discerned as emerging in events, but it cannot be described precisely as a force that directs events. This is a subtle distinction. The story of each photon is the same, in a way that the story of each animal and plant is different. (Of course there are wonderful examples of precise, quantitative statements Darwinian theory and corresponding experiments, but these don't take place at anywhere close to the level of human experience, which is whole organisms that have complex behaviors in environments.) "Story" is the operative word. Evolutionary thought has almost always been applied to specific situations through stories.

A story, unlike a theory, invites embroidery and variation, and indeed stories gain their communicative power by resonance with more primal stories. It is possible to learn physics without inventing a narrative in one's head to give meaning to photons and black holes. But it seems that it is impossible to learn Darwinian evolution without also developing an internal narrative to relate it to other stories one knows. At least no public thinker on the subject seems to have confronted Darwin without building a bridge to personal value systems.

But beyond the question of subjective flavoring, there remains the problem of whether Darwin has explained enough. Is it not possible that there remains an as-yet unarticulated idea that explains aspects of achievement and creativity that Darwin does not?

For instance, is Darwinian-styled explanation sufficient to understand the process of rational thought? There are a plethora of recent theories in which the brain is said to produce random distributions of subconscious ideas that compete with one another until only the best one has survived, but do these theories really fit with what people do?

In nature, evolution appears to be brilliant at optimizing, but stupid at strategizing. (The mathematical image that expresses this idea is that "blind" evolution has enourmous trouble getting unstuck from a local minima in an energy landscape.) The classic question would be: How could evolution have made such marvelous feet, claws, fins, and paws, but have missed the wheel? There are plenty of environments in which creatures would benefit from wheels, so why haven't any appeared? Not even once? (A great long term art project for some rebellious kid in school now: Genetically engineer an animal with wheels! See if DNA can be made to do it.)

People came up with the wheel and numerous other useful inventions that seem to have eluded evolution. It is possible that the explanation is simply that hands had access to a different set of inventions than DNA, even though both were guided by similar processes. But it seems to me premature to treat such an interpretation as a certainty. Is it not possible that in rational thought the brain does some as yet unarticulated thing that might have originated in a Darwinian process, but that cannot be explained by it?

The first two or three generations of artificial intelligence researchers took it as a given that blind evolution in itself couldn't be the whole of the story, and assumed that there were elements that distinguished human mentation from other Earthly processes. For instance, humans were thought by many to build abstract representations of the world in their minds, while the process of evolution needn't do that. Furthermore, these representations seemed to possess extraordinary qualities like the fearsome and perpetually elusive "common sense". After decades of failed attempts to build similar abstractions in computers, the field of AI gave up, but without admitting it. Surrender was couched as merely a series of tactical retreats. AI these days is often conceived as more of a craft than a branch of science or engineering. A great many practitioners I've spoken with lately hope to see software evolve that does various things but seem to have sunk to an almost "post-modern", or cynical lack of concern with understanding how these gizmos might actually work.

It is important to remember that craft-based cultures can come up with plenty of useful technologies, and that the motivation for our predecessors to embrace the Enlightenment and the ascent of rationality was not just to make more technologies more quickly. There was also the idea of Humanism, and a belief in the goodness of rational thinking and understanding. Are we really ready to abandon that?

Finally, there is an empirical point to be made: There has now been over a decade of work worldwide in Darwinian approaches to generating software, and while there have been some fascinating and impressive isolated results, and indeed I enjoy participating in such research, nothing has arisen from the work that would make software in general any better- as I'll ddescribe in the next section.

So, while I love Darwin, I won't count on him to write code.

Belief #5: That qualitative as well as quantitative aspects of information systems will be accelerated by Moore's Law.

The hardware side of computers keeps on getting better and cheaper at an exponential rate known by the moniker "Moore's Law". Every year and a half or so computation gets roughly twice as fast for a given cost. The implications of this are dizzying and so profound that they induce vertigo on first apprehension. What could a computer that was a million times faster than the one I am writing this text on be able to do? Would such a computer really be incapable of doing whatever it is my human brain does? The quantity of a "million" is not only too large to grasp intuitively, it is not even accessible experimentally for present purposes, so speculation is not irrational. What is stunning is to realize that many of us will find out the answer in our lifetimes, for such a computer might be a cheap consumer product in about, say 30 years.

This breathtaking vista must be starkly contrasted with the Great Shame of computer science, which is that we don't seem to be able to write software much better as computers get much faster. Computer software continues to disappoint. How I hated UNIX back in the seventies - that devilish accumulator of data trash, obscurer of function, enemy of the user! If anyone had told me back then that getting back to embarrassingly primitive UNIX would be the great hope and investment obsession of the year 2000, merely because it's name was changed to LINUX and its source code was opened up again, I never would have had the stomach or the heart to continue in computer science.

If anything, there's a reverse Moore's Law observable in software: As processors become faster and memory becomes cheaper, software becomes correspondingly slower and more bloated, using up all available resources. Now I know I'm not being entirely fair here. We have better speech recognition and language translation than we used to, for example, and we are learning to run larger data bases and networks. But our core techniques and technologies for software simply haven't kept up with hardware. (Just as some newborn race of superintelligent robots are about to consume all humanity, our dear old species will likely be saved by a Windows crash. The poor robots will linger pathetically, begging us to reboot them, even though they'll know it would do no good.)

There are various reasons that software tends to be unwieldly, but a primary one is what I like to call "brittleness". Software breaks before it bends, so it demands perfection in a universe that prefers statistics. This in turn leads to all the pain of legacy/lock in, and other perversions. The distance between the ideal computers we imagine in our thought experiments and the real computers we know how to unleash on the world could not be more bitter.

It is the fetishizing of Moore's Law that seduces researchers into complacency. If you have an exponential force on your side, surely it will ace all challenges. Who cares about rational understanding when you can instead really on an exponential extra-human fetish? But processing power isn't the only thing that scales impressively; so do the problems that processors have to solve.

Here's an example I offer to non-technical people to illustrate this point. Ten years ago I had a laptop with an indexing program that let me search for files by content. In order to respond quickly enough when I performed a search, it went through all the files in advance and indexed them, just as search engines like Google index the internet today. The indexing process took about an hour.

Today I have a laptop that is hugely more capacious and faster in every dimension, as predicted by Moore's Law. However, I now have to let my indexing program run overnight to do its job. There are many other examples of computers seeming to get slower even though central processors are getting faster. Computer user interfaces tend to respond more slowly to user interface events, such as a keypress, than they did fifteen years ago, for instance. What's gone wrong?

The answer is complicated.

One part of the answer is fundamental. It turns out that when programs and datasets get bigger (and increasing storage and transmission capacities are driven by the same processes that drive Moore's exponential speedup), internal computational overhead often increases at a worse-than-linear rate. This is because of some nasty mathematical facts of life regarding algorithms. Making a problem twice as large usually makes it take a lot more than twice as long to solve. Some algorithms are worse in this way than others, and one aspect of getting a solid undergraduate education in computer science is learning about them. Plenty of problems have overheads that scale even more steeply than Moore's Law. Surprisingly few of the most essential algorithms have overheads that scale at a merely linear rate.

But that's only the beginning of the story. It's also true that if different parts of a system scale at different rates, and that's usually the case, one part might be overwhelmed by the other. In the case of my indexing program, the size of hard disks actually grew faster than the speed of interfaces to them. Overhead costs can be amplified by such examples of "messy" scaling, in which one part of a system cannot keep up with another. A bottleneck then appears, rather like girdlock in a poorly designed roadway. And the backup that results is just as bad as a morning commute on a typically inadequate roadway system. And just as tricky and expensive to plan for and prevent. (Trips on Manhattan streets were faster a hundred years ago than they are today. Horses are faster than cars.)

And then we come to our old antagonist, brittleness. The larger a piece of computer software gets, the more it is likely to be dominated by some form of legacy code, and the more brutal becomes the overhead of addressing the endless examples of subtle incompatibility that inevitably arise between chunks of software originally created in different contexts.

And even beyond these effects, there are failings of human character that worsen the state of software, and many of these are systemic and might arise even if non-human agents were writing the code. For instance, it is very time-consuming and expensive to plan ahead to make the tasks of future programmers easier, so each programmer tends to choose strategies that worsen the effects of brittleness. The time crunch faced by programmers is driven by none other than Moore's Law, which motivates an ever-faster turnaround of software revisions to get at least some form of mileage out of increasing processor speeds. So the result is often software that gets less efficient in some ways even as processors become faster.

I see no evidence that Moore's Law is steep enough to outrun all these problems without additional unforeseen intellectual achievements.

A fundamental statement of the question I'm examining here is: Does software tend to be unwieldly only because on human error, or is the difficulty intrinsic to the nature of software itself. If there is any credibility at all to the eschatological scenarios of Kurtzweil, Drexler, Moravec, et al, then this is the single most important question related to the future of mankind.

There is at least some metaphorical support for the possibility that software unwieldliness is intrinsic. In order to examine this possibility I'll have to break my own rule and be a cybernetic totalist for a moment.

Nature might seem to be less brittle than digital software, but if species are thought of as "programs", then it looks like nature also has a software crisis. Evolution itself has evolved, introducing sex, for instance, but evolution has never found a way to be any speed but very slow. This might be at least in part because it takes a long time to explore the space of possible variations of an exceedingly vast and complex causal system to find new configurations that are viable. Natural evolution's slowness as a medium of transformation is apparently systemic, rather than esulting from some inherent sluggishness in its component parts. On the contrary, adaptation is capable of achieving thrilling speed, in select circumstances. An example of fast change is the adaptation of germs to our efforts to eradicate them. Resistance to antibiotics is a notorious contemporary example of biological speed.

Both human-created software and natural selection seem to accrue hierarchies of layers that vary in their potential for speedy change. Slow-changing layers protect local theaters within which there is a potential for faster change. In computers, this is the divide between operating systems and applications, or between browsers and web pages. In biology, it might be seen, for example, in the divide between nature- and nurture-dominated dynamics in the human mind. But the lugubrious layers seem to usually define the overall character and potential of a system.

In the minds of some of my colleagues, all you have to do is identify one layer in a cybernetic system that's capable of fast change and then wait for Moore's Law to work it's magic. For instance, even if you're stuck with LINUX, you might implement a neural net program in it that eventually grows huge and fast enough (because of Moore's Law) to achieve a moment of insight and rewrite its own operating system. The problem is that in every example we know, a layer that can change fast also can't change very much. Germs can adopt to new drugs quickly, but would still take a very long time to evolve into Owls. This might be an inherent trade-off. For an example in the digital world, you can write a new JAVA applet pretty quickly, but it won't look very different from other quickly written applets- take a look at what's been done with applets and you'll see that this is true.

Now we finally come to...

Belief #6: the coming cybernetic cataclysm.

When a thoughtful person marvels at Moore's Law, there might be awe and there might be terror. One version of the terror was expressed recently by Bill Joy, in a cover story for Wired Magazine. Bill accepts the pronouncements of Ray Kurtzweil and others, who believe that Moore's Law will lead to autonomous machines, perhaps by the year 2020. That is the when computers will become, according to some estimates, about as powerful as human brains. (Not that anyone knows enough to really measure brains against computers yet. But for the sake of argument, let's suppose that the comparison is meaningful.) According to this scenario of the Terror, computers won't be stuck in boxes. They'll be more like robots, all connected together on the net, and they'll have a quite bag of tricks.

They'll be able to perform nano-manufacturing, for one thing. They'll quickly learn to reproduce and improve themselves. One fine day without warning, the new supermachines will brush humanity aside as casually as humans clear a forest for a new development. Or perhaps the machines will keep humans around to suffer the sort of indignity portrayed in the movie *The Matrix*.

Even if the machines would otherwise choose to preserve their human progenitors, evil humans will be able to manipulate the machines to do vast harm to the rest of us. This is a different scenario that Bill also explores. Biotechnology will have advanced to the point that computer programs will be able to manipulate DNA as if it were Javascript. If computers can calculate the effects of drugs, genetic modifications, and other biological trickery, and if the tools to realize such tricks are cheap, then all it takes is a one madman to, say, create an epidemic targeted at a single race. Biotechnology without a strong, cheap information technology component would not be sufficiently potent to bring about this scenario. Rather, it is the ability of software running on fabulously fast computers to cheaply model and guide the manipulation of biology that is at the root of this variant of the Terror. I haven't been able to fully convey Bill's concerns in this brief account, but you get the idea.

My version of the Terror is different. We can already see how the biotechnology industry is setting itself up for decades of expensive software trouble. While there are all sorts of useful databases and modeling packages being developed by biotech firms and labs, they all exist in isolated developmental bubbles. Each such tool expects the world to conform to its requirements. Since the tools are so valuable, the world will do exactly that, but we should expect to see vast resources applied to the problem of getting data from bubble into another. There is no giant monolithic electronic brain being created with biological knowledge. There is instead a fractured mess of data and modeling fiefdoms. The medium for biological data transfer will continue to be sleep-deprived individual human researchers until some fabled future time when we know how to make software that is good at bridging bubbles on its own.

What is a long term future scenario like in which hardware keeps getting better and software remains mediocre? The great thing about crummy software is the amount of employment it generates. If Moore's Law is upheld for another twenty or thirty years, there will not only be a vast amount of computation going on Planet Earth, but also the maintenance of that computation will consume the efforts of almost every living person. We're talking about a planet of helpdesks.

I have argued elsewhere that this future would be a great thing, realizing the socialist dream of full employment by capitalist means. But let's consider the dark side.

Among the many processes that information systems make more efficient is the process of capitalism itself. A nearly friction-free economic environment allows fortunes to be accumulated in a few months instead of a few decades, but the individuals doing the accumulating are still living as long as they used to; longer, in fact. So those individuals who are good at getting rich have a chance to get richer before they die than their equally talented forebears.

There are two dangers in this. The smaller, more immediate danger is that young people acclimatized to a deliriously receptive economic environment might be emotionally wounded by what the rest of us would consider brief returns to normalcy. I do sometimes wonder if some of the students I work with who have gone on to dot com riches would be able to handle any financial frustration that lasted more than a few days without going into some sort of destructive depression or rage.

The greater danger is that the gulf between the richest and the rest could become transcendently grave. That is, even if we agree that a rising tide raises all ships, if the rate of the rising of the highest ships is greater than that of the lowest, they will become ever more separated. (And indeed, concentrations of wealth and poverty have increased during the Internet boom years in America.)

If Moore's Law or something like it is running the show, the scale of the separation could become astonishing. This is where my Terror resides, in considering the ultimate outcome of the increasing divide between the ultra-rich and the merely better off.

With the technologies that exist today, the wealthy and the rest aren't all that different; both bleed when pricked, for the classic example. But with the technology of the next twenty or thirty years they might become quite different indeed. Will the ultra-rich and the rest even be recognizable as the same species by the middle of the new century?

The possibilities that they will become essentially different species are so obvious and so terrifying that there is almost a banality in stating them. The rich could have their children made genetically more intelligent, beautiful, and joyous. Perhaps they could even be genetically disposed to have a superior capacity for empathy, but only to other people who meet some narrow range of criteria. Even stating these things seems beneath me, as if I were writing pulp science fiction, and yet the logic of the possibility is inescapable.

Let's explore just one possibility, for the sake of argument. One day the richest among us could turn nearly immortal, becoming virtual Gods to the rest of us. (An apparent lack of aging in both cell cultures and in whole organisms has been demonstrated in the laboratory.)

Let's not focus here on the fundamental questions of near immortality: whether it is moral or even desirable, or where one would find room if immortals insisted on continuing to have children. Let's instead focus on the question of whether immortality is likely to be expensive.

My guess is that immortality will be cheap if information technology gets much better, and expensive if software remains as crummy as it is.

I suspect that the hardware/software dichotomy will reappear in biotechnology, and indeed in other 21st century technologies. You can think of biotechnology as an attempt to make flesh into a computer, in the sense that biotechnology hopes to manage the processes of biology in ever greater detail, leading at some far horizon to perfect control. Likewise, nanotechnology hopes to do the same thing for materials science. If the body, and the material world at large become more manipulatable, more like a computer's memory, then the limiting factor will be the quality of the software that governs the manipulation.

Even though it's possible to program a computer to do virtually anything, we all know that's really not a sufficient description of computers. As I argued above: Getting computers to perform specific tasks of significant complexity in a reliable but modifiable way, without crashes or security breaches, is essentially impossible. We can only approximate this goal, and only at great expense.

Likewise, one can hypothetically program DNA to make virtually any modification in a living thing, and yet designing a particular modification and vetting it thoroughly will likely remain immensely difficult. (And, as I argued above, that might be one reason why biological evolution has never found a way to be anything speed other than very slow.) Similarly, one can hypothetically

use nanotechnology to make matter do almost anything conceivable, but it will probably turn out to be much harder than we now imagine to get it do any particular thing of complexity without disturbing side effects. Scenarios that predict that biotechnology and nanotechnology will be able to quickly and cheaply create startling new things under the sun also must imagine that computers will become semi-autonomous, superintelligent, virtuoso engineers. But computers will do no such thing if the last half century of progress in software can serve as a predictor of the next half century.

In other words, bad software will make biological hacks like near-immortality expensive instead of cheap in the future. Even if everything else gets cheaper, the information technology side of the effort will get more expensive.

Cheap near-immortality for everyone is a self-limiting proposition. There isn't enough room to accommodate such an adventure. Also, roughly speaking, if immortality was to become cheap, so would the horrific biological weapons of Bill's scenario. On the other hand, expensive near immortality is something the world could absorb, at least for a good long while, because there would be fewer people involved. Maybe they could even keep the effort quiet.

So, here is the irony. The very features of computers which drive us crazy today, and keep so many of us gainfully employed, are the best insurance our species has for long term survival as we explore the far reaches of technological possibility. On the other hand, those same annoying qualities are what could make the 21st century into a madhouse scripted by the fantasies and desperate aspirations of the super-rich.

Conclusion

I share the belief of my cybernetic totalist colleagues that there will be huge and sudden changes in the near future brought about by technology. The difference is that I believe that whatever happens will be the responsibility of individual people who do specific things. I think that treating technology as if it were autonomous is the ultimate self-fulfilling prophecy. There is no difference between machine autonomy and the abdication of human responsibility.

Let's take the "nanobots take over" scenario. It seems to me that the most likely scenarios involve either:

1. Super-nanobots everywhere that run old software- linux, say. This might be interesting. Good video games will be available, anyway.
2. Super-nanobots that evolve as fast as natural nanobots- so don't do much for millions of years.
3. Super-nanobots that do new things soon, but are dependent on humans. In all these cases humans will be in control, for better or for worse.

So, therefore, I'll worry about the future of human culture more than I'll worry about the gadgets. And what worries me about the "Young Turk" cultural temperament seen in cybernetic totalists is that they seem to not have been educated in the tradition of scientific skepticism. I understand

why they are intoxicated. There IS a compelling simple logic behind their thinking and elegance in thought is infectious.

There is a real chance that evolutionary psychology, artificial intelligence, Moore's Law fetishizing, and the rest of the package, will catch on in a big way, as big as Freud or Marx did in their times. Or bigger, since these ideas might end up essentially built into the software that runs our society and our lives. If that happens, the ideology of cybernetic totalist intellectuals will be amplified from novelty into a force that could cause suffering for millions of people.

The greatest crime of Marxism wasn't simply that much of what it claimed was false, but that it claimed to be the sole and utterly complete path to understanding life and reality. Cybernetic eschatology shares with some of history's worst ideologies a doctrine of historical predestination. There is nothing more gray, stultifying, or dreary than a life lived inside the confines of a theory. Let us hope that the cybernetic totalists learn humility before their day in the sun arrives.

(Parts of this manifesto draw on material from two earlier essays. One appeared in CIO Magazine in English, and the other in Frankfurter Allgemeine Zeitung in German, as part of that newspaper's ongoing coverage of the Edge community.)*

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CHAPTER

EIGHTEEN

THE OPEN SOURCE EVERYTHING MANIFESTO (ROBERT DAVID STEELE, 2013)

The following is excerpted from The Open-Source Everything Manifesto: Transparency, Truth, & Trust published by Evolver Editions, an imprint of North Atlantic Books.

The circumstances underlying this manifesto are stark and compelling: We are at the end of a five-thousand-year-plus historical process during which human society grew in scale while it abandoned the early indigenous wisdom councils and communal decision-making. Power was centralized in the hands of increasingly specialized "elites" and "experts" who not only failed to achieve all they promised but used secrecy and the control of information to deceive the public into allowing them to retain power over community resources that they ultimately looted.

In the beginning, there was the commons. Over vast stretches of prehistoric time, tribal cultures evolved in tandem with the natural environment. They did this without creating private property or hierarchical relationships of control and dominance that led to consumption of nature as a resource. Open-source culture provided for community sharing and community development. With the rise of patriarchy, empire, and systems of egoic control and empowerment, this open-source approach to community was destroyed. Over the course of the last centuries, the commons was fenced, and everything from agriculture to water was commoditized without regard to the true cost in non-renewable resources. Human beings, who had spent centuries evolving away from slavery, were re-commoditized by the Industrial Era.

The corruption of the commons led to the loss of integrity between and among individuals, organizations, and community. Artificial paradises made up of objects and possessions were substituted for true community based on authentic heart-to-heart relationships. Secular corruption is made possible by information asymmetries between those in power and the public. In the absence of transparency, truth, and trust, wealth is concentrated and waste is rampant.

We, Homo sapiens, are defined by what we know in the context of the Cosmos and the Earth — larger Whole Systems.

We, Homo sapiens, were in harmony with the Cosmos and the Earth during earlier centuries when indigenous wisdom prevailed. The evolution of social forms and technology toward ever-greater levels of complexity is part of our human development toward deeper consciousness and self-awareness. The technosphere, as José Argüelles and others have realized, is the necessary detour

that takes us from the pristine biosphere to the psychically collectivized state of the noosphere.

We live in a constellation of complex systems. It is impossible for any single person or even any single organization or nation in isolation to understand complex systems.

Collective intelligence — multinational, multiagency, multidisciplinary, multidomain information-sharing and sense-making — is the only means of obtaining near-real time understanding of complex systems sufficient to achieve resilience in the face of changes. Many of these changes, including biospheric ones such as climate change and depletion of planetary resources, are the result of human activity and industry in the last three centuries.

As our technological capacities continue to increase and our environment becomes ever more fragile and endangered, we find that changes to the Earth that used to take ten thousand years now take a fraction of that. We must rediscover and reintegrate indigenous wisdom in order to come back into harmony with larger whole systems, and do so in a manner that allows for application of appropriate technologies and science, open-source intelligence gathering, and real-time self-governance.

This means that we cannot afford to address our complex world with industrial-era hierarchies in which information travels laboriously up the chain to the top, some elites deliberate — lacking much of the information they need, and often lacking ethics as well — and then micro-management instructions go back down. All this takes time, and the instructions are invariably wrong. Instead, we harness the intelligence at the edge of the network — at the point of impact — and the individual who is face to face with a problem in a microcosm is the tip of the human spear, able both to reach back to all other humans for assistance, and to act on behalf of all humans in the moment.

It is in this light that we must recognize that only a restoration of open-source culture, and all that enables across the full spectrum of open-source possibilities, can allow humanity to harness the distributed intelligence of the collective and create the equivalent of heaven on Earth — in other words, a world that works for all.

History is a narrative we construct and a tool we can shape. Our model of history has been corrupted by "information pathologies" that include weapons of distortion and deception; suppression of alternatives and repression of inconvenient knowledge; and manufactured consent, propaganda, secrecy, and outright ideologically justified lies that go unchallenged by most journalists and scholars.

Knowledge has fragmented due to academic specialization, which supports an elite culture of secrecy and allows for control of populations by the wealthy few, who maintain surveillance and information-gathering operations. The sciences are divorced from the humanities and from religions; disciplines are divorced from one another; within disciplines the sub-disciplines have become tiny cultures in isolation from all other knowledge clusters.

We find ourselves at the end of centuries of isolation and alienation. We are at the beginning of the Great Awakening. The evolution of social technologies and communications media appears to align with prophecies of indigenous cultures like the classic Maya, who looked toward our epoch as the end of one great cycle and the beginning of another. It's a window of opportunity for us, potentially the threshold of transformation of humanity into a new psychic collectivity, a new

global civilization that can attain galactic citizenship. We have the potential to achieve a radical evolution and expansion of our consciousness as a species, once we put aside all lesser goals.

Sharing, not secrecy, is the means by which we realize such a lofty destiny as well as create infinite wealth. The wealth of networks, the wealth of knowledge, revolutionary wealth — all can create a nonzero win-win Earth that works for one hundred percent of humanity. This is the "utopia" that Buckminster Fuller foresaw, now within our reach.

Context matters. Context creates coherence and restores the missing connections that the fragmentation of knowledge into academic specializations has caused. Economy needs to be reimagined in terms of a whole systems approach-the "true costs" of human action need to be measured holistically, in terms of effects on the regenerative capacity of the biosphere as a whole. If we as Homo sapiens fail to connect the dots and make decisions on the basis of truthful, true-cost information, we will self-destruct.

Clarity (transparency) is the means by which we nurture the recognition and sharing of truth.

Diversity is how our human species will achieve ongoing abundance by liberating human innovation.

Integrity is how we enter into a "state of grace" and become "one with God," however you choose to define and understand these broad terms. This manifesto defines "God" as an experience of collective solidarity that extends from the human realm to the universe as a whole.

Sustainability can only be achieved through mass collaboration and the achievement of panarchy — a constellation of co-equal hybrid systems of self-governance in which all individuals freely choose where they wish to be heard, and have full access to all relevant information.

Culture is the soul of the community, the "glue" that keeps the lessons of history alive, that demands clarity, that unifies diversity, that nurtures and demands integrity, and thus sustains thecommunity.

A model for public intelligence is proffered in this book, ideally providing a means for every citizen to be a collector, producer, and consumer of public intelligence (decision-support).

A model for informed democracy also is proffered here — it provides a means for achieving panarchy, enabling every citizen to have access to all relevant information and to participate constructively in an infinite number of self-selected communities of interest.

Organized people will defeat organized money every time. We must all come together to begin a new era that restores the sovereignty of the public in the aggregate over all other forms of organization and influence.

Panarchy is the end-state, Radical Man is the soul, Reflexive Practice is the process, and Web 4.0 — all people connected to one another and all information in all languages all the time — is the means whereby we create and actualize a World Brain and Global Game, a noosphere, and achieve evolutionary collective consciousness.

The goal is to reject money and concentrated illicitly aggregated and largely phantom wealth in favor of community wealth defined by community knowledge, community sharing of information, and community definition of truth derived in transparency and authenticity, the latter being the ultimate arbiter of shared wealth.

When we relate and share knowledge authentically, this places us in a state of grace, a state of "win-win" harmony with all others, and establishes trust among all.

CHAPTER

NINETEEN

THE CRITICAL ENGINEERING MANIFESTO (CE WORKING GROUP, 2011-2014)

The Critical Engineering Working Group

Berlin, October 2011-2014

Julian Oliver

Gordan Savičić

Danja Vasiliev

0. The Critical Engineer considers Engineering to be the most transformative language of our time, shaping the way we move, communicate and think. It is the work of the Critical Engineer to study and exploit this language, exposing its influence.
1. The Critical Engineer considers any technology depended upon to be both a challenge and a threat. The greater the dependence on a technology the greater the need to study and expose its inner workings, regardless of ownership or legal provision.
2. The Critical Engineer raises awareness that with each technological advance our techno-political literacy is challenged. 3. The Critical Engineer deconstructs and incites suspicion of rich user experiences.
3. The Critical Engineer looks beyond the "awe of implementation" to determine methods of influence and their specific effects.
4. The Critical Engineer recognises that each work of engineering engineers its user, proportional to that user's dependency upon it.
5. The Critical Engineer expands "machine" to describe interrelationships encompassing devices, bodies, agents, forces and networks.
6. The Critical Engineer observes the space between the production and consumption of technology. Acting rapidly to changes in this space, the Critical Engineer serves to expose moments of imbalance and deception.
7. The Critical Engineer looks to the history of art, architecture, activism, philosophy and invention and finds exemplary works of Critical Engineering. Strategies, ideas and agendas

from these disciplines will be adopted, re-purposed and deployed.

8. The Critical Engineer notes that written code expands into social and psychological realms, regulating behaviour between people and the machines they interact with. By understanding this, the Critical Engineer seeks to reconstruct user-constraints and social action through means of digital excavation.
9. The Critical Engineer considers the exploit to be the most desirable form of exposure.

CHAPTER

TWENTY

A PRIVACY ENGINEER'S MANIFESTO [1] (2014)

....These principles are an attempt to illuminate a belief system in which the seemingly opposing motives of creating corporate profit and respecting individual privacy can live in harmony. Here you may find a meeting grounds that enables both your organization and your customers to profit—each in their own ways.

Data about people is valuable in and of itself.

Data provide commercial value to businesses in addition to their inherent value from a personal perspective. They also provide value as an exchange or a unique identifier to build social connections. A privacy engineer understands this principle as bedrock and strives to find innovative ways to extend the value of data while protecting their inherent value.

A privacy engineer needs more than just technical skills to protect and extend the value of data.

The inherent value of data that is attained from or attributable to human beings requires a number of different perspectives and skill sets to be effective. The privacy engineer, as a modern renaissance type discipline, views personal data through legal, creative, and personal lenses.

A privacy engineer draws from artistic creativity and expression to innovate and communicate.

Beyond learning from sister disciplines to add to the known world of technology, the privacy engineer seeks to create simplicity, clarity, and beauty to engage and inform users and owners of systems. The tools of engagement can use sound, taste, touch, sight, smell, intuition, or any

[1] Michelle Finneran Dennedy; Jonathan Fox; Thomas R. Finneran. Copyright 2014 Apress

other artistic medium. Technologies, policies, laws, organization, and metric modalities all have interfaces. Effective interfaces can be engaging, challenging, educational, elegant, emotive, and even beautiful where innovation meets art.

A privacy engineer learns from, but disregards, the failures of the past.

While building on past successes as well as the remnants of previous attempts at success, a privacy engineer closely regards and incorporates existing tools, policies, and frameworks as scaffolding to create something wonderful. (Borrowed heavily from Intel founder Bob Noyes.) A privacy engineer strives to map and develop data systems in a scientific fashion in order to create new or improved meansof delivering value to all parties who have a vested interest in the data.

We are all privacy engineers.

We all possess or are the subject of PI [2] and have a vested interest in protecting it. Some of us have occasion to operate as "professional privacy engineers," but all of us at least operate as "citizen privacy engineers" when we act as stewards of our own PI and the PI of others.

For the privacy engineer, with the mantra to innovate comes the mantra to do no harm.

The privacy engineer's goal should be to harness the inherent value of data and innovate to create additional value. But the most basic requirement for the privacy engineer is to do no harm and to plan to eliminate as much secondary or unanticipated harm as possible.

Innovation and complexity need not be the adversary of privacy engineering, although failure of imagination may be.

What is not thought of cannot be recognized and therefore cannot be managed. Failures of imagination are thus the biggest enemy of the privacy engineer. Failure to imagine a new possibility means that a value creating opportunity or a risk mitigation opportunity has been missed.

[2] Personal Information

The privacy engineer must be able to understand, calculate, mitigate, and accept risk.

The privacy engineer cannot ignore risk or fall prey to the idea that it can be completely eliminated. By embracing both risk and value, the privacy engineer can strive to find solutions that deliver maximum value at an acceptable risk level to the organization and the individual.

Privacy engineering happens inside and outside of code.

Coding, building systems, and the business processes that support the product lifecycle are critical. A foundation of privacy principles and operational business processes can support development of products that promote privacy. At the same time, the individual doing the developing may see opportunities for innovation that can only be envisioned by one who is at the proverbial drawing board.

A privacy engineer needs to differentiate between bad ideas and bad implementations.

A bad idea is one that goes against privacy principles or lacks sound judgment about using and protecting PI. A bad implementation is when the design goal is sound but the implementation is not due to poor usability, unmitigated risks, or an approach that weakens the bond of trust with users. In the latter scenario, a bad implementation that may harm data privacy may be rearchitected or protected in another layered fashion, whereas, in the former, a bad idea should be acknowledged and quickly ended before damage is done.

CHAPTER

TWENTYONE

NEW CLUES (SEARLS AND WEINBERGER, 2015)

Preface

Subject

Digital Markets, Discourse

Description

New Clues is a follow-up to the 1999 Cluetrain Manifesto. Written by Doc Searls & David Weinberger, New Clues offers new categories to think Internet-based communication (the fools, the the marauders, & the horde) and supports a more creative and open Internet.

Creator

Doc Searls & David Weinberger

Source

http://cluetrain.com/newclues/

Date

January 8, 2015

Rights

Hear, O Internet.

It has been sixteen years since our previous communication.

In that time the People of the Internet — you and me and all our friends of friends of friends, unto the last Kevin Bacon — have made the Internet an awesome place, filled with wonders and portents.

From the serious to the lolworthy to the wtf, we have up-ended titans, created heroes, and changed the most basic assumptions about How Things Work and Who We Are.

But now all the good work we've done together faces mortal dangers.

When we first came before you, it was to warn of the threat posed by those who did not understand that they did not understand the Internet.

These are *The Fools*, the businesses that have merely adopted the trappings of the Internet.

Now two more hordes threaten all that we have built for one another.

The Marauders understand the Internet all too well. They view it as theirs to plunder, extracting our data and money from it, thinking that we are the fools.

But most dangerous of all is the third horde: *Us*.

A horde is an undifferentiated mass of people. But the glory of the Internet is that it lets us connect as diverse and distinct individuals.

We all like mass entertainment. Heck, TV's gotten pretty great these days, and the Net lets us watch it when we want. Terrific.

But we need to remember that delivering mass media is the least of the Net's powers.

The Net's super-power is connection without permission. Its almighty power is that we can make of it whatever we want.

It is therefore *not* time to lean back and consume the oh-so-tasty junk food created by Fools and Marauders as if our work were done. It is time to breathe in the fire of the Net and transform every institution that would play us for a patsy.

An organ-by-organ body snatch of the Internet is already well underway. Make no mistake: with a stroke of a pen, a covert handshake, or by allowing memes to drown out the cries of the afflicted we can lose the Internet we love.

We come to you from the years of the Web's beginning. We have grown old together on the Internet. Time is short.

We, the People of the Internet, need to remember the glory of its revelation so that we reclaim it now in the name of what it truly is.

January 8, 2015

Once were we young in the Garden...

The Internet is us, connected.

The Internet is not made of copper wire, glass fiber, radio waves, or even tubes.

The devices we use to connect to the Internet are not the Internet.

Verizon, Comcast, AT&T, [and] Deutsche Telekom...do not own the Internet. Facebook, Google, and Amazon are not the Net's monarchs, nor yet are their minions or algorithms. Not the governments of the Earth nor their Trade Associations have the consent of the networked to bestride the Net as sovereigns.

We hold the Internet in common and as unowned.

From us and from what we have built on it does the Internet derive all its value.

The Net is of us, by us, and for us.

The Internet is ours.

The Internet is nothing and has no purpose.

The Internet is not a thing any more than gravity is a thing. Both pull us together.

The Internet is no-thing at all. At its base the Internet is a set of agreements, which the geeky among us (long may their names be hallowed) call "protocols," but which we might, in the temper of the day, call "commandments."

The first among these is: Thy network shall move all packets closer to their destinations without favor or delay based on origin, source, content, or intent.

Thus does this First Commandment lay open the Internet to every idea, application, business, quest, vice, and whatever.

There has not been a tool with such a general purpose since language.

This means the Internet is not for anything in particular. Not for social networking, not for documents, not for advertising, not for business, not for education, not for porn, not for anything. It is specifically designed for everything.

Optimizing the Internet for one purpose de-optimizes it for all others.

The Internet like gravity is indiscriminate in its attraction. It pulls us all together, the virtuous and the wicked alike.

The Net is not content.

There is great content on the Internet. But holy mother of cheeses, the Internet is not made out of content.

A teenager's first poem, the blissful release of a long-kept secret, a fine sketch drawn by a palsied hand, a blog post in a regime that hates the sound of its people's voices — none of these people sat down to write content.

Did we use the word "content" without quotes? We feel so dirty.

The Net is not a medium.

The Net is not a medium any more than a conversation is a medium.

On the Net, we are the medium. We are the ones who move messages. We do so every time we post or retweet, send a link in an email, or post it on a social network.

Unlike a medium, you and I leave our fingerprints, and sometimes bite marks, on the messages we pass. We tell people why we're sending it. We argue with it. We add a joke. We chop off the part we don't like. We make these messages our own. Every time we move a message through the Net, it carries a little bit of ourselves with it.

We only move a message through this "medium" if it matters to us in one of the infinite ways that humans care about something.

Caring — mattering — is the motive force of the Internet.

The Web is a Wide World.

In 1991, Tim Berners-Lee used the Net to create a gift he gave freely to us all: the World Wide Web. Thank you.

Tim created the Web by providing protocols (there's that word again!) that say how to write a page that can link to any other page without needing anyone's permission.

Boom. Within ten years we had billions of pages on the Web — a combined effort on the order of a World War, and yet so benign that the biggest complaint was the <blink> tag.

The Web is an impossibly large, semi-persistent realm of items discoverable in their dense interconnections.

That sounds familiar. Oh, yeah, that's what the world is.

Unlike the real world, every thing and every connection on the Web was created by some one of us expressing an interest and an assumption about how those small pieces go together.

Every link by a person with something to say is an act of generosity and selflessness, bidding our readers leave our page to see how the world looks to someone else.

The Web remakes the world in our collective, emergent image.

But oh how we have strayed, sisters and brothers...

How did we let conversation get weaponized, anyway?

It's important to notice and cherish the talk, the friendship, the thousand acts of sympathy, kindness, and joy we encounter on the Internet.

And yet we hear the words "fag" and "nigger" far more on the Net than off.

Demonization of 'them' — people with looks, languages, opinions, memberships and other groupings we don't understand, like, or tolerate — is worse than ever on the Internet.

Women in Saudi Arabia can't drive? Meanwhile, half of us can't speak on the Net without looking over our shoulders.

Hatred is present on the Net because it's present in the world, but the Net makes it easier to express and to hear.

The solution: If we had a solution, we wouldn't be bothering you with all these damn clues.

We can say this much: Hatred didn't call the Net into being, but it's holding the Net — and us — back.

Let's at least acknowledge that the Net has values implicit in it. Human values.

Viewed coldly the Net is just technology. But it's populated by creatures who are warm with what they care about: their lives, their friends, the world we share.

The Net offers us a common place where we can be who we are, with others who delight in our differences.

No one owns that place. Everybody can use it. Anyone can improve it.

That's what an open Internet is. Wars have been fought for less.

"We agree about everything. I find you fascinating!"

The world is spread out before us like a buffet, and yet we stick with our steak and potatoes, lamb and hummus, fish and rice, or whatever.

We do this in part because conversation requires a common ground: shared language, interests, norms, understandings. Without those, it's hard or even impossible to have a conversation.

Shared grounds spawn tribes. The Earth's solid ground kept tribes at a distance, enabling them to develop rich differences. Rejoice! Tribes give rise to Us vs. Them and war. Rejoice? Not so much.

On the Internet, the distance between tribes starts at zero.

Apparently knowing how to find one another interesting is not as easy as it looks.

That's a challenge we can meet by being open, sympathetic, and patient. We can do it, team! We're #1! We're #1!

Being welcoming: There's a value the Net needs to learn from the best of our real world cultures.

Marketing still makes it harder to talk.

We were right the first time: Markets are conversations.

A conversation isn't your business tugging at our sleeve to shill a product we don't want to hear about.

if we want to know the truth about your products, we'll find out from one another.

We understand that these conversations are incredibly valuable to you. Too bad. They're ours.

You're welcome to join our conversation, but only if you tell us who you work for, and if you can speak for yourself and as yourself.

Every time you call us "consumers" we feel like cows looking up the word "meat."

Quit fracking our lives to extract data that's none of your business and that your machines misinterpret.

Don't worry: we'll tell you when we're in the market for something. In our own way. Not yours. Trust us: this will be good for you.

Ads that sound human but come from your marketing department's irritable bowels, stain the fabric of the Web.

When personalizing something is creepy, it's a pretty good indication that you don't understand what it means to be a person.

Personal is human. Personalized isn't.

The more machines sound human, the more they slide down into the uncanny valley where everything is a creep show.

Also: Please stop dressing up ads as news in the hope we'll miss the little disclaimer hanging off their underwear.

When you place a "native ad," you're eroding not just your own trustworthiness, but the trustworthiness of this entire new way of being with one another.

And, by the way, how about calling "native ads" by any of their real names: "product placement," "advertorial," or "fake fucking news"?

Advertisers got along without being creepy for generations. They can get along without being creepy on the Net, too.

The Gitmo of the Net.

We all love our shiny apps, even when they're sealed as tight as a Moon base. But put all the closed apps in the world together and you have a pile of apps.

Put all the Web pages together and you have a new world.

Web pages are about connecting. Apps are about control.

As we move from the Web to an app-based world, we lose the commons we were building together.

In the Kingdom of Apps, we are users, not makers.

Every new page makes the Web bigger. Every new link makes the Web richer.

Every new app gives us something else to do on the bus.

Ouch, a cheap shot!

Hey, "CheapShot" would make a great new app! It's got "in-app purchase" written all over it.

Gravity's great until it sucks us all into a black hole.

Non-neutral applications built on top of the neutral Net are becoming as inescapable as the pull of a black hole.

If Facebook is your experience of the Net, then you've strapped on goggles from a company with a fiduciary responsibility to keep you from ever taking the goggles off.

Google, Amazon, Facebook, Apple are all in the goggles business. The biggest truth their goggles obscure: These companies want to hold us the way black holes hold light.

These corporate singularities are dangerous not because they are evil. Many of them in fact engage in quite remarkably civic behavior. They should be applauded for that. But they benefit from the gravity of sociality: The "network effect" is that thing where lots of people use something because lots of people use it.

Where there aren't competitive alternatives, we need to be hypervigilant to remind these Titans of the Valley of the webby values that first inspired them.

And then we need to honor the sound we make when any of us bravely pulls away from them. It's something between the noise of a rocket leaving the launchpad and the rip of Velcro as you undo a too-tight garment.

Privacy in an age of spies.

Ok, government, you win. You've got our data. Now, what can we do to make sure you use it against Them and not against Us? In fact, can you tell the difference?

If we want our government to back off, the deal has to be that if — when — the next attack comes, we can't complain that they should have surveilled us harder.

A trade isn't fair trade if we don't know what we're giving up. Do you hear that, Security for Privacy trade-off?

With a probability approaching absolute certainty, we are going to be sorry we didn't do more to keep data out of the hands of our governments and corporate overlords.

Privacy in an age of weasels.

Personal privacy is fine for those who want it. And we all draw the line somewhere.

Q: How long do you think it took for pre-Web culture to figure out where to draw the lines? A: How old is culture?

The Web is barely out of its teens. We are at the beginning, not the end, of the privacy story.

We can only figure out what it means to be private once we figure out what it means to be social. And we've barely begun to re-invent that.

The economic and political incentives to de-pants and up-skirt us are so strong that we'd be wise to invest in tinfoil underwear.

Hackers got us into this and hackers will have to get us out.

To build and to plant

Kumbiyah sounds surprisingly good in an echo chamber.

The Internet is astounding. The Web is awesome. You are beautiful. Connect us all and we are more crazily amazing than Jennifer Lawrence. These are simple facts.

So let's not minimize what the Net has done in the past twenty years:

There's so much more music in the world.

We now make most of our culture for ourselves, with occasional forays to a movie theater for something blowy-uppy and a $9 nickel-bag of popcorn.

Politicians now have to explain their positions far beyond the one-page "position papers" they used to mimeograph.

Anything you don't understand you can find an explanation for. And a discussion about. And an argument over. Is it not clear how awesome that is?

You want to know what to buy? The business that makes an object of desire is now the worst source of information about it. The best source is all of us.

You want to listen in on a college-level course about something you're interested in? Google your topic. Take your pick. For free.

Yeah, the Internet hasn't solved all the world's problems. That's why the Almighty hath given us asses: that we might get off of them.

Internet naysayers keep us honest. We just like 'em better when they aren't ingrates.

A pocket full of homilies.

We were going to tell you how to fix the Internet in four easy steps, but the only one we could remember is the last one: profit. So instead, here are some random thoughts...

We should be supporting the artists and creators who bring us delight or ease our burdens.

We should have the courage to ask for the help we need.

We have a culture that defaults to sharing and laws that default to copyright.

Copyright has its place, but when in doubt, open it up.

In the wrong context, everyone's an a-hole. (Us, too. But you already knew that.) So if you're inviting people over for a swim, post the rules. All trolls, out of the pool!

If the conversations at your site are going badly, it's your fault.

Wherever the conversation is happening, no one owes you a response, no matter how reasonable your argument or how winning your smile.

Support the businesses that truly "get" the Web. You'll recognize them not just because they sound like us, but because they're on our side.

Sure, apps offer a nice experience. But the Web is about links that constantly reach out, connecting us without end. For lives and ideas, completion is death. Choose life.

Anger is a license to be stupid. The Internet's streets are already crowded with licensed drivers.

Live the values you want the Internet to promote.

If you've been talking for a while, shut up. (We will very soon.)

Being together: the cause of and solution to every problem.

If we have focused on the role of the People of the Net — you and us — in the Internet's fall from grace, that's because we still have the faith we came in with.

We, the People of the Net, cannot fathom how much we can do together because we are far from finished inventing how to be together.

The Internet has liberated an ancient force — the gravity drawing us together.

The gravity of connection is love.

Long live the open Internet.

Long may we have our Internet to love.

Afterword

This is an Open Source document.

These New Clues are designed to be shared and re-used without our permission. Use them however you want. Make them your own. We only request that you please point back at this original page ('http://cluetrain.com/newclues/) because that's just polite.

If you are a developer, the text of this page is openly available at GitHub for programmatic re-use.

To make it as easy as possible to share, use, and re-use the clues, we have put all the text on this page into the public domain via a Creative Commons 0 license. It is essentially copyright free.

About

Fifteen years ago, four of us got together and posted The Cluetrain Manifesto which tried to explain what most businesses and much of the media were getting wrong about the Web.

These New Clues come from two of the authors of that manifesto, and of the book that followed.

There's more information here about this project, and about its authors, and . Join us at cluetrain@twitter.com. Or Facebook. Sigh.

CC0

CHAPTER

TWENTYTWO

ANTI-SEC MANIFESTO

CHAPTER

TWENTYTHREE

HAPPY HACKING 2015 MANIFESTO 2015)

Preface

Subject

Hacking, Anonymous

Description

The Happy Hacking 2015 Manifesto is a call to revive curiosity and collaboration online in 2015. The authors of the manifesto criticize world governments for criminalizing hacking while at the same time approriating their criminal status. #SailSafeMotherFuckers!

Creator

Anonymous

Source

http://pastebin.com/PjB5ag1u

Date

January 18, 2015

Body

There is only one time when it is essential to awaken. That time is now, We cannot wait till somebody wakes you. You are the crazy ones, the misfit, the rebel, the troublemaker, the one who see things differently. We are not fond of rules and have no respect for the statuesque, you can imprison us and oppress us we don't care we are legion.

Only thing you can't do is ignore us because we change things. We create revolution's, we empower a free society in the here and now. And while they are afraid of us with their cronyism and kleptocracy, their bureaucracy and ideology, their police and spies calling us criminals, we see creation. Because the people who are crazy enough to think they can change the world, are the ones who do.

But did you, in your cronyism and 1900's kleptocracy, ever take a look behind the eyes of the hacker? Did you ever wonder what made him tick, what forces shaped him, what may have molded him? We are hacker's, we create, enter our world...

We found a computer. Wait a second, this is cool. It does what we want it to. If it makes a mistake, it's because we screwed it up. Not because it doesn't like us... Or feels threatened by us... Or thinks we are a smart ass... Or doesn't like teaching and shouldn't be here... And then it happened... a door opened to a world... rushing through the internet like heroin through an addict's veins, an electronic pulse is sent out, a refuge from the day-to-day incompetencies is sought... a board is found. "This is it... this is where we belong..." we know everyone here... even if we never met them, never talked to them, may never hear from them again... We know you all...

You bet your ass we're all alike... we've been spoon-fed baby food at school when we hungered for steak... the bits of meat that you did let slip through were pre-chewed and tasteless. We've been dominated by sadists, or ignored by the apathetic. The few that had something to teach found us will- ing pupils, but those few are like drops of water in the desert.

Life amounts to no more than one drop in a limitless ocean. Yet what is any ocean, but a multitude of drops?

This is our world now... the world of the electron and the switch, the beauty of the 0 and the 1. We make use of a service already existing without paying for what could be dirt-cheap if it wasn't run by profiteering gluttons, and you call us criminals. We explore... and you call us criminals. We seek after knowledge... and you call us criminals. We exist without skin color, without nationality, without religious bias... and you call us criminals. You build atomic bombs, you wage wars, you murder, cheat, and lie to us and try to make us believe it's for our own good, yet we're the criminals.

Yes, I am a criminal. My crime is that of curiosity. My crime is that of judging people by what they say and think, not what they look like. My crime is that of outsmarting you, something that you will never forgive me for.

I am a hacker, and this is my manifesto. You may stop this individual, but you can't stop us all... after all, we're all alike. #SailSafeMotherFuckers!

We are Anonymous, We do not forget, We do not forgive, We are Legion, Expect us...

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CHAPTER

TWENTYFOUR

<THE::CYBER.COM/MUNIST::MANIFESTO> (RICHARD BARBROOK)

Preface

Subject

Digital Communism, Open Access

Description

In his THE::CYBER.COM/MUNIST:: MANIFESTO, Richard Barbrook champions a cyber-communism against the neo-liberalism. Further, Barbrook explains how ordinary everyday Net users can work against the exchange of commodities with what he calls the circulation of 'work-as-gifts'.

Creator

Richard Barbrook

Source

http://www.hrc.wmin.ac.uk/theory-cybercommunistmanifesto.html

Publisher

The Hypermedia Research Centre, http://www.hrc.wmin.ac.uk/hrc.html, http://www.westminster.ac.uk/

Body

A spectre is haunting the Net: the spectre of communism. Whatever their professed political beliefs, every user dreams of the digital transcendence of capitalism. Yet, at the same time, even the most dedicated leftist can no longer truly believe in communism. The horrors of totalitarianism have discredited its promises of social emancipation. Seizing this opportunity, the prophets of American neo-liberalism are now laying claim to the future. The adoption of information technologies will lead to the privatisation and deregulation of all economic activities. The freedoms of the information society will be created by an elite of entrepreneurs, technocrats and ideologues. Needing to popularise their prophecies, right-wing gurus emphasise that every hi-tech professional can compete to join the emerging digital aristocracy. Above all, they predict that everyone will eventually enjoy the technological marvels currently only available to the lucky few. In the late-1990s, the prophets of American neo-liberalism measure our progress towards utopia through increases in the ownership of digital artefacts: home computers, Net connections, mobile phones and laptops. Ironically, this right-wing futurism echoes the preconceptions of Stalinist communism. In the former Soviet Union, the enlightened minority was also leading the ignorant masses towards eventual emancipation. Any suffering caused by the introduction of new technologies was justified by the promise of future liberation. During the 1930s, Josef Stalin similarly measured progress towards utopia through the rising output of modern products: steel, cars, tractors and machine-tools. Although the Soviet Union has long disappeared, the ideologues of American neo-liberalism are still inspired by the Stalinist version of communism.

vanguard party	digerati
The Five-Year Plan	The New Paradigm
boy-meets-tractor	nerd-meets-Net
Third International	Third Wave
Moscow	Silicon Valley
Pravda	Wired
party line	unique thought
Soviet democracy	electronic town halls
Lysenkoism	memetics
society-as-factory	society-as-hive
New Soviet Man	post-humans
Stakhanovite norm-busting	overworked contract labour
purges	downsizing
Russian nationalism	Californian chauvinism

According to most politicians, executives and pundits, the Net is founded upon the buying and selling of information. As in other cultural industries, intellectual labour within cyberspace must be enclosed into commodities and protected by copyright. However, computer-mediated communications was never designed for trading information. On the contrary, the scientists who invented the Net were working within the academic gift economy. As a consequence, they embedded the free distribution of information within the technical structures and social mores of the Net. Over time, the charmed circle of users has slowly grown from scientists through hobbyists to the general public. Crucially, each new member doesn't just observe the technical rules of the system, but also

adheres to certain social conventions. Without even thinking about it, people continually circulate information between each other for free. By giving away their own personal efforts, Net users always receive the results of much greater amounts of labour in return from others. Instead of needing a market, people can now work together by circulating gifts between each other. Although many on-line activities are trivial, some collaborations are creating very sophisticated products, such as the Linux operating system and interactive music pieces. Despite their power and wealth, the multi-media multinationals are unable to impose the commodification of intellectual labour within cyberspace. At the dawn of the new millennium, Net users are developing a much more efficient and enjoyable way of working together: cyber-communism.

commodity	gift
enclosure	disclosure
copyright	piracy
fixed	fluid
product	process
proprietary	open source
digital encryption	free download
original recording	latest remix
scarcity	abundance
alienation	friendship
New Soviet Man	post-humans
market competition	network communities
e-commerce	cyber-communism

In earlier times, the abolition of capitalism was envisaged in apocalyptic terms: revolutionary uprisings, mass mobilisations and modernising dictatorships. In contrast, Net users are engaged in the slow process of superseding capitalism. In this dialectical movement, hi-tech neo-liberals perfect the existing relations of production by developing e-commerce: work-as-commodity. Reacting against this enclosure of cyberspace, left-wing activists celebrate the piracy of copyright material within the on-line potlatch: waste-as-gift. For those nostalgic for ideological certainty, there can be no compromise between these contradictory visions of the Net. Yet, the synthesis of these dialectical opposites is happening for pragmatic reasons. The low 'cost of entry' into e-commerce is due to the absence of proprietary barriers within the Net. The rapid expansion of the hi-tech gift economy is facilitated by hardware and software sold by large companies. Above all, Net users always adopt the working methods which are most beneficial to their own interests. Sometimes, they will engage in e-commerce. On most occasions, they will prefer to collaborate within the hi-tech gift economy. Many social activities are already organised by voluntary labour and with donated resources. Now, with the advent of the Net, this gift economy is challenging market competition at the cutting-edge of modernity. Living within a prosperous society, many people are no longer solely motivated by financial rewards. If they have sufficient time and money, they will also work to gain the respect of their peers for their efforts. Within the Net, people are developing the most advanced form of collective labour: work-as-gift. During the last two hundred years, the intimate bonds of kinship and friendship have simultaneously inhibited and underpinned the impersonal relationships needed for market competition. The modern has always co-existed with the traditional. Now, within cyberspace, the exchange of commodities is being both intensified

and prevented by the circulation of gifts. The modern must synthesise with the hyper-modern. Far from needing leadership by a heroic elite, ordinary people can now successfully construct their own digital future. In the age of the Net, cyber-communism is a mundane everyday experience.

The Positive	The Negation	The Negation of the Negation
work-as-commodity	waste-as-gift	work-as-gift
e-commerce	potlatch	network communities
reactionary modernism	revolutionary anti-modernism	revolutionary modernism

CHAPTER

TWENTYFIVE

CIVIL DISOBEDIENCE (HENRY DAVID THOREAU, 1849)

I heartily accept the motto, “That government is best which governs least”; and I should like to see it acted up to more rapidly and systematically. Carried out, it finally amounts to this, which also I believe - “That government is best which governs not at all”; and when men are prepared for it, that will be the kind of government which they will have. Government is at best but an expedient; but most governments are usually, and all governments are sometimes, inexpedient. The objections which have been brought against a standing army, and they are many and weighty, and deserve to prevail, may also at last be brought against a standing government. The standing army is only an arm of the standing government. The government itself, which is only the mode which the people have chosen to execute their will, is equally liable to be abused and perverted before the people can act through it. Witness the present Mexican war, the work of comparatively a few individuals using the standing government as their tool; for, in the outset, the people would not have consented to this measure.

This American government - what is it but a tradition, though a recent one, endeavoring to transmit itself unimpaired to posterity, but each instant losing some of its integrity? It has not the vitality and force of a single living man; for a single man can bend it to his will. It is a sort of wooden gun to the people themselves. But it is not the less necessary for this; for the people must have some complicated machinery or other, and hear its din, to satisfy that idea of government which they have. Governments show thus how successfully men can be imposed on, even impose on themselves, for their own advantage. It is excellent, we must all allow. Yet this government never of itself furthered any enterprise, but by the alacrity with which it got out of its way. It does not keep the country free. It does not settle the West. It does not educate. The character inherent in the American people has done all that has been accomplished; and it would have done somewhat more, if the government had not sometimes got in its way. For government is an expedient by which men would fain succeed in letting one another alone; and, as has been said, when it is most expedient, the governed are most let alone by it. Trade and commerce, if they were not made of india-rubber, would never manage to bounce over the obstacles which legislators are continually putting in their way; and, if one were to judge these men wholly by the effects of their actions and not partly by their intentions, they would deserve to be classed and punished with those mischievous persons who put obstructions on the railroads.

But, to speak practically and as a citizen, unlike those who call themselves no-government men, I ask for, not at once no government, but at once a better government. Let every man make known

what kind of government would command his respect, and that will be one step toward obtaining it.

After all, the practical reason why, when the power is once in the hands of the people, a majority are permitted, and for a long period continue, to rule is not because they are most likely to be in the right, nor because this seems fairest to the minority, but because they are physically the strongest. But a government in which the majority rule in all cases cannot be based on justice, even as far as men understand it. Can there not be a government in which majorities do not virtually decide right and wrong, but conscience? - in which majorities decide only those questions to which the rule of expediency is applicable? Must the citizen ever for a moment, or in the least degree, resign his conscience to the legislation? Why has every man a conscience, then? I think that we should be men first, and subjects afterward. It is not desirable to cultivate a respect for the law, so much as for the right. The only obligation which I have a right to assume is to do at any time what I think right. It is truly enough said that a corporation has no conscience; but a corporation of conscientious men is a corporation with a conscience. Law never made men a whit more just; and, by means of their respect for it, even the well-disposed are daily made the agents of injustice. A common and natural result of an undue respect for law is, that you may see a file of soldiers, colonel, captain, corporal, privates, powder-monkeys, and all, marching in admirable order over hill and dale to the wars, against their wills, ay, against their common sense and consciences, which makes it very steep marching indeed, and produces a palpitation of the heart. They have no doubt that it is a damnable business in which they are concerned; they are all peaceably inclined. Now, what are they? Men at all? or small movable forts and magazines, at the service of some unscrupulous man in power? Visit the Navy-Yard, and behold a marine, such a man as an American government can make, or such as it can make a man with its black arts - a mere shadow and reminiscence of humanity, a man laid out alive and standing, and already, as one may say, buried under arms with funeral accompaniments, though it may be,

> "Not a drum was heard, not a funeral note, As his corse to the rampart we hurried; Not a soldier discharged his farewell shot O'er the grave where our hero we buried."

The mass of men serve the state thus, not as men mainly, but as machines, with their bodies. They are the standing army, and the militia, jailers, constables, posse comitatus, etc. In most cases there is no free exercise whatever of the judgment or of the moral sense; but they put themselves on a level with wood and earth and stones; and wooden men can perhaps be manufactured that will serve the purpose as well. Such command no more respect than men of straw or a lump of dirt. They have the same sort of worth only as horses and dogs. Yet such as these even are commonly esteemed good citizens. Others - as most legislators, politicians, lawyers, ministers, and office-holders - serve the state chiefly with their heads; and, as they rarely make any moral distinctions, they are as likely to serve the devil, without intending it, as God. A very few - as heroes, patriots, martyrs, reformers in the great sense, and men - serve the state with their consciences also, and so necessarily resist it for the most part; and they are commonly treated as enemies by it. A wise man will only be useful as a man, and will not submit to be "clay," and "stop a hole to keep the wind away," but leave that office to his dust at least:

> "I am too high-born to be propertied, To be a secondary at control, Or useful serving-man and instrument To any sovereign state throughout the world."

He who gives himself entirely to his fellow-men appears to them useless and selfish; but he who gives himself partially to them is pronounced a benefactor and philanthropist.

How does it become a man to behave toward this American government today? I answer, that he cannot without disgrace be associated with it. I cannot for an instant recognize that political organization as my government which is the slave's government also.

All men recognize the right of revolution; that is, the right to refuse allegiance to, and to resist, the government, when its tyranny or its inefficiency are great and unendurable. But almost all say that such is not the case now. But such was the case, they think, in the Revolution Of '75. If one were to tell me that this was a bad government because it taxed certain foreign commodities brought to its ports, it is most probable that I should not make an ado about it, for I can do without them. All machines have their friction; and possibly this does enough good to counterbalance the evil. At any rate, it is a great evil to make a stir about it. But when the friction comes to have its machine, and oppression and robbery are organized, I say, let us not have such a machine any longer. In other words, when a sixth of the population of a nation which has undertaken to be the refuge of liberty are slaves, and a whole country is unjustly overrun and conquered by a foreign army, and subjected to military law, I think that it is not too soon for honest men to rebel and revolutionize. What makes this duty the more urgent is the fact that the country so overrun is not our own, but ours is the invading army.

Paley, a common authority with many on moral questions, in his chapter on the "Duty of Submission to Civil Government," resolves all civil obligation into expediency; and he proceeds to say that "so long as the interest of the whole society requires it, that is, so long as the established government cannot be resisted or changed without public inconveniency, it is the will of God... that the established government be obeyed - and no longer. This principle being admitted, the justice of every particular case of resistance is reduced to a computation of the quantity of the danger and grievance on the one side, and of the probability and expense of redressing it on the other." Of this, he says, every man shall judge for himself. But Paley appears never to have contemplated those cases to which the rule of expediency does not apply, in which a people, as well as an individual, must do justice, cost what it may. If I have unjustly wrested a plank from a drowning man, I must restore it to him though I drown myself. This, according to Paley, would be inconvenient. But he that would save his life, in such a case, shall lose it. This people must cease to hold slaves, and to make war on Mexico, though it cost them their existence as a people.

In their practice, nations agree with Paley; but does any one think that Massachusetts does exactly what is right at the present crisis?

> "A drab of state, a cloth-o'-silver slut, To have her train borne up, and her soul trail in the dirt."

Practically speaking, the opponents to a reform in Massachusetts are not a hundred thousand politicians at the South, but a hundred thousand merchants and farmers here, who are more interested in commerce and agriculture than they are in humanity, and are not prepared to do justice to the slave and to Mexico, cost what it may. I quarrel not with far-off foes, but with those who, near at home, cooperate with, and do the bidding of those far away, and without whom the latter would be harmless. We are accustomed to say, that the mass of men are unprepared; but improvement is slow, because the few are not materially wiser or better than the many. It is not so important that

many should be as good as you, as that there be some absolute goodness somewhere; for that will leaven the whole lump. There are thousands who are in opinion opposed to slavery and to the war, who yet in effect do nothing to put an end to them; who, esteeming themselves children of Washington and Franklin, sit down with their hands in their pockets, and say that they know not what to do, and do nothing; who even postpone the question of freedom to the question of free trade, and quietly read the prices-current along with the latest advices from Mexico, after dinner, and, it may be, fall asleep over them both. What is the price-current of an honest man and patriot today? They hesitate, and they regret, and sometimes they petition; but they do nothing in earnest and with effect. They will wait, well disposed, for others to remedy the evil, that they may no longer have it to regret. At most, they give only a cheap vote, and a feeble countenance and God-speed, to the right, as it goes by them. There are nine hundred and ninety-nine patrons of virtue to one virtuous man. But it is easier to deal with the real possessor of a thing than with the temporary guardian of it.

All voting is a sort of gaming, like checkers or backgammon, with a slight moral tinge to it, a playing with right and wrong, with moral questions; and betting naturally accompanies it. The character of the voters is not staked. I cast my vote, perchance, as I think right; but I am not vitally concerned that that right should prevail. I am willing to leave it to the majority. Its obligation, therefore, never exceeds that of expediency. Even voting for the right is doing nothing for it. It is only expressing to men feebly your desire that it should prevail. A wise man will not leave the right to the mercy of chance, nor wish it to prevail through the power of the majority. There is but little virtue in the action of masses of men. When the majority shall at length vote for the abolition of slavery, it will be because they are indifferent to slavery, or because there is but little slavery left to be abolished by their vote. They will then be the only slaves. Only his vote can hasten the abolition of slavery who asserts his own freedom by his vote.

I hear of a convention to be held at Baltimore, or elsewhere, for the selection of a candidate for the Presidency, made up chiefly of editors, and men who are politicians by profession; but I think, what is it to any independent, intelligent, and respectable man what decision they may come to? Shall we not have the advantage of his wisdom and honesty, nevertheless? Can we not count upon some independent votes? Are there not many individuals in the country who do not attend conventions? But no: I find that the respectable man, so called, has immediately drifted from his position, and despairs of his country, when his country has more reason to despair of him. He forthwith adopts one of the candidates thus selected as the only available one, thus proving that he is himself available for any purposes of the demagogue. His vote is of no more worth than that of any unprincipled foreigner or hireling native, who may have been bought. O for a man who is a man, and, as my neighbor says, has a bone in his back which you cannot pass your hand through! Our statistics are at fault: the population has been returned too large. How many men are there to a square thousand miles in this country? Hardly one. Does not America offer any inducement for men to settle here? The American has dwindled into an Odd Fellow - one who may be known by the development of his organ of gregariousness, and a manifest lack of intellect and cheerful self-reliance; whose first and chief concern, on coming into the world, is to see that the almshouses are in good repair; and, before yet he has lawfully donned the virile garb, to collect a fund for the support of the widows and orphans that may be; who, in short, ventures to live only by the aid of the Mutual Insurance company, which has promised to bury him decently.

It is not a man's duty, as a matter of course, to devote himself to the eradication of any, even the most enormous, wrong; he may still properly have other concerns to engage him; but it is his duty, at least, to wash his hands of it, and, if he gives it no thought longer, not to give it practically his support. If I devote myself to other pursuits and contemplations, I must first see, at least, that I do not pursue them sitting upon another man's shoulders. I must get off him first, that he may pursue his contemplations too. See what gross inconsistency is tolerated. I have heard some of my townsmen say, "I should like to have them order me out to help put down an insurrection of the slaves, or to march to Mexico; - see if I would go"; and yet these very men have each, directly by their allegiance, and so indirectly, at least, by their money, furnished a substitute. The soldier is applauded who refuses to serve in an unjust war by those who do not refuse to sustain the unjust government which makes the war; is applauded by those whose own act and authority he disregards and sets at naught; as if the state were penitent to that degree that it differed one to scourge it while it sinned, but not to that degree that it left off sinning for a moment. Thus, under the name of Order and Civil Government, we are all made at last to pay homage to and support our own meanness. After the first blush of sin comes its indifference; and from immoral it becomes, as it were, unmoral, and not quite unnecessary to that life which we have made.

The broadest and most prevalent error requires the most disinterested virtue to sustain it. The slight reproach to which the virtue of patriotism is commonly liable, the noble are most likely to incur. Those who, while they disapprove of the character and measures of a government, yield to it their allegiance and support are undoubtedly its most conscientious supporters, and so frequently the most serious obstacles to reform. Some are petitioning the State to dissolve the Union, to disregard the requisitions of the President. Why do they not dissolve it themselves - the union between themselves and the State - and refuse to pay their quota into its treasury? Do not they stand in the same relation to the State that the State does to the Union? And have not the same reasons prevented the State from resisting the Union which have prevented them from resisting the State?

How can a man be satisfied to entertain an opinion merely, and enjoy it? Is there any enjoyment in it, if his opinion is that he is aggrieved? If you are cheated out of a single dollar by your neighbor, you do not rest satisfied with knowing that you are cheated, or with saying that you are cheated, or even with petitioning him to pay you your due; but you take effectual steps at once to obtain the full amount, and see that you are never cheated again. Action from principle, the perception and the performance of right, changes things and relations; it is essentially revolutionary, and does not consist wholly with anything which was. It not only divides States and churches, it divides families; ay, it divides the individual, separating the diabolical in him from the divine.

Unjust laws exist: shall we be content to obey them, or shall we endeavor to amend them, and obey them until we have succeeded, or shall we transgress them at once? Men generally, under such a government as this, think that they ought to wait until they have persuaded the majority to alter them. They think that, if they should resist, the remedy would be worse than the evil. But it is the fault of the government itself that the remedy is worse than the evil. It makes it worse. Why is it not more apt to anticipate and provide for reform? Why does it not cherish its wise minority? Why does it cry and resist before it is hurt? Why does it not encourage its citizens to be on the alert to point out its faults, and do better than it would have them? Why does it always crucify Christ, and excommunicate Copernicus and Luther, and pronounce Washington and Franklin rebels?

One would think, that a deliberate and practical denial of its authority was the only offence never

contemplated by government; else, why has it not assigned its definite, its suitable and proportionate, penalty? If a man who has no property refuses but once to earn nine shillings for the State, he is put in prison for a period unlimited by any law that I know, and determined only by the discretion of those who placed him there; but if he should steal ninety times nine shillings from the State, he is soon permitted to go at large again.

If the injustice is part of the necessary friction of the machine of government, let it go, let it go: perchance it will wear smooth - certainly the machine will wear out. If the injustice has a spring, or a pulley, or a rope, or a crank, exclusively for itself, then perhaps you may consider whether the remedy will not be worse than the evil; but if it is of such a nature that it requires you to be the agent of injustice to another, then, I say, break the law. Let your life be a counter-friction to stop the machine. What I have to do is to see, at any rate, that I do not lend myself to the wrong which I condemn.

As for adopting the ways which the State has provided for remedying the evil, I know not of such ways. They take too much time, and a man's life will be gone. I have other affairs to attend to. I came into this world, not chiefly to make this a good place to live in, but to live in it, be it good or bad. A man has not everything to do, but something; and because he cannot do everything, it is not necessary that he should do something wrong. It is not my business to be petitioning the Governor or the Legislature any more than it is theirs to petition me; and if they should not bear my petition, what should I do then? But in this case the State has provided no way: its very Constitution is the evil. This may seem to be harsh and stubborn and unconciliatory; but it is to treat with the utmost kindness and consideration the only spirit that can appreciate or deserves it. So is an change for the better, like birth and death, which convulse the body.

I do not hesitate to say, that those who call themselves Abolitionists should at once effectually withdraw their support, both in person and property, from the government of Massachusetts, and not wait till they constitute a majority of one, before they suffer the right to prevail through them. I think that it is enough if they have God on their side, without waiting for that other one. Moreover, any man more right than his neighbors constitutes a majority of one already.

I meet this American government, or its representative, the State government, directly, and face to face, once a year - no more - in the person of its tax-gatherer; this is the only mode in which a man situated as I am necessarily meets it; and it then says distinctly, Recognize me; and the simplest, the most effectual, and, in the present posture of affairs, the indispensablest mode of treating with it on this head, of expressing your little satisfaction with and love for it, is to deny it then. My civil neighbor, the tax-gatherer, is the very man I have to deal with - for it is, after all, with men and not with parchment that I quarrel - and he has voluntarily chosen to be an agent of the government. How shall he ever know well what he is and does as an officer of the government, or as a man, until he is obliged to consider whether he shall treat me, his neighbor, for whom he has respect, as a neighbor and well-disposed man, or as a maniac and disturber of the peace, and see if he can get over this obstruction to his neighborliness without a ruder and more impetuous thought or speech corresponding with his action. I know this well, that if one thousand, if one hundred, if ten men whom I could name - if ten honest men only - ay, if one HONEST man, in this State of Massachusetts, ceasing to hold slaves, were actually to withdraw from this copartnership, and be locked up in the county jail therefor, it would be the abolition of slavery in America. For it matters not how small the beginning may seem to be: what is once well done is done forever. But we love

better to talk about it: that we say is our mission, Reform keeps many scores of newspapers in its service, but not one man. If my esteemed neighbor, the State's ambassador, who will devote his days to the settlement of the question of human rights in the Council Chamber, instead of being threatened with the prisons of Carolina, were to sit down the prisoner of Massachusetts, that State which is so anxious to foist the sin of slavery upon her sister - though at present she can discover only an act of inhospitality to be the ground of a quarrel with her - the Legislature would not wholly waive the subject the following winter.

Under a government which imprisons any unjustly, the true place for a just man is also a prison. The proper place today, the only place which Massachusetts has provided for her freer and less desponding spirits, is in her prisons, to be put out and locked out of the State by her own act, as they have already put themselves out by their principles. It is there that the fugitive slave, and the Mexican prisoner on parole, and the Indian come to plead the wrongs of his race should find them; on that separate, but more free and honorable, ground, where the State places those who are not with her, but against her - the only house in a slave State in which a free man can abide with honor. If any think that their influence would be lost there, and their voices no longer afflict the ear of the State, that they would not be as an enemy within its walls, they do not know by how much truth is stronger than error, nor how much more eloquently and effectively he can combat injustice who has experienced a little in his own person. Cast your whole vote, not a strip of paper merely, but your whole influence. A minority is powerless while it conforms to the majority; it is not even a minority then; but it is irresistible when it clogs by its whole weight. If the alternative is to keep all just men in prison, or give up war and slavery, the State will not hesitate which to choose. If a thousand men were not to pay their tax-bills this year, that would not be a violent and bloody measure, as it would be to pay them, and enable the State to commit violence and shed innocent blood. This is, in fact, the definition of a peaceable revolution, if any such is possible. If the tax-gatherer, or any other public officer, asks me, as one has done, "But what shall I do?" my answer is, "If you really wish to do anything, resign your office." When the subject has refused allegiance, and the officer has resigned his office, then the revolution is accomplished. But even suppose blood should flow. Is there not a sort of blood shed when the conscience is wounded? Through this wound a man's real manhood and immortality flow out, and he bleeds to an everlasting death. I see this blood flowing now.

I have contemplated the imprisonment of the offender, rather than the seizure of his goods - though both will serve the same purpose - because they who assert the purest right, and consequently are most dangerous to a corrupt State, commonly have not spent much time in accumulating property. To such the State renders comparatively small service, and a slight tax is wont to appear exorbitant, particularly if they are obliged to earn it by special labor with their hands. If there were one who lived wholly without the use of money, the State itself would hesitate to demand it of him. But the rich man - not to make any invidious comparison - is always sold to the institution which makes him rich. Absolutely speaking, the more money, the less virtue; for money comes between a man and his objects, and obtains them for him; and it was certainly no great virtue to obtain it. It puts to rest many questions which he would otherwise be taxed to answer; while the only new question which it puts is the hard but superfluous one, how to spend it. Thus his moral ground is taken from under his feet. The opportunities of living are diminished in proportion as what are called the "means" are increased. The best thing a man can do for his culture when he is rich is to endeavor to carry out those schemes which he entertained when he was poor. Christ answered the Herodians

according to their condition. “Show me the tribute-money,” said he; - and one took a penny out of his pocket; - if you use money which has the image of Caesar on it, and which he has made current and valuable, that is, if you are men of the State, and gladly enjoy the advantages of Caesar’s government, then pay him back some of his own when he demands it. “Render therefore to Caesar that which is Caesar’s, and to God those things which are God’s” - leaving them no wiser than before as to which was which; for they did not wish to know.

When I converse with the freest of my neighbors, I perceive that, whatever they may say about the magnitude and seriousness of the question, and their regard for the public tranquillity, the long and the short of the matter is, that they cannot spare the protection of the existing government, and they dread the consequences to their property and families of disobedience to it. For my own part, I should not like to think that I ever rely on the protection of the State. But, if I deny the authority of the State when it presents its tax-bill, it will soon take and waste all my property, and so harass me and my children without end. This is hard. This makes it impossible for a man to live honestly, and at the same time comfortably, in outward respects. It will not be worth the while to accumulate property; that would be sure to go again. You must hire or squat somewhere, and raise but a small crop, and eat that soon. You must live within yourself, and depend upon yourself always tucked up and ready for a start, and not have many affairs. A man may grow rich in Turkey even, if he will be in all respects a good subject of the Turkish government. Confucius said: “If a state is governed by the principles of reason, poverty and misery are subjects of shame; if a state is not governed by the principles of reason, riches and honors are the subjects of shame.” No: until I want the protection of Massachusetts to be extended to me in some distant Southern port, where my liberty is endangered, or until I am bent solely on building up an estate at home by peaceful enterprise, I can afford to refuse allegiance to Massachusetts, and her right to my property and life. It costs me less in every sense to incur the penalty of disobedience to the State than it would to obey. I should feel as if I were worth less in that case.

Some years ago, the State met me in behalf of the Church, and commanded me to pay a certain sum toward the support of a clergyman whose preaching my father attended, but never I myself. “Pay,” it said, “or be locked up in the jail.” I declined to pay. But, unfortunately, another man saw fit to pay it. I did not see why the schoolmaster should be taxed to support the priest, and not the priest the schoolmaster; for I was not the State’s schoolmaster, but I supported myself by voluntary subscription. I did not see why the lyceum should not present its tax-bill, and have the State to back its demand, as well as the Church. However, at the request of the selectmen, I condescended to make some such statement as this in writing: - “Know all men by these presents, that I, Henry Thoreau, do not wish to be regarded as a member of any incorporated society which I have not joined.” This I gave to the town clerk; and he has it. The State, having thus learned that I did not wish to be regarded as a member of that church, has never made a like demand on me since; though it said that it must adhere to its original presumption that time. If I had known how to name them, I should then have signed off in detail from all the societies which I never signed on to; but I did not know where to find a complete list.

I have paid no poll-tax for six years. I was put into a jail once on this account, for one night; and, as I stood considering the walls of solid stone, two or three feet thick, the door of wood and iron, a foot thick, and the iron grating which strained the light, I could not help being struck with the foolishness of that institution which treated me as if I were mere flesh and blood and bones, to be

locked up. I wondered that it should have concluded at length that this was the best use it could put me to, and had never thought to avail itself of my services in some way. I saw that, if there was a wall of stone between me and my townsmen, there was a still more difficult one to climb or break through before they could get to be as free as I was. I did not for a moment feel confined, and the walls seemed a great waste of stone and mortar. I felt as if I alone of all my townsmen had paid my tax. They plainly did not know how to treat me, but behaved like persons who are underbred. In every threat and in every compliment there was a blunder; for they thought that my chief desire was to stand the other side of that stone wall. I could not but smile to see how industriously they locked the door on my meditations, which followed them out again without let or hindrance, and they were really all that was dangerous. As they could not reach me, they had resolved to punish my body; just as boys, if they cannot come at some person against whom they have a spite, will abuse his dog. I saw that the State was half-witted, that it was timid as a lone woman with her silver spoons, and that it did not know its friends from its foes, and I lost all my remaining respect for it, and pitied it.

Thus the State never intentionally confronts a man's sense, intellectual or moral, but only his body, his senses. It is not armed with superior wit or honesty, but with superior physical strength. I was not born to be forced. I will breathe after my own fashion. Let us see who is the strongest. What force has a multitude? They only can force me who obey a higher law than I. They force me to become like themselves. I do not hear of men being forced to have this way or that by masses of men. What sort of life were that to live? When I meet a government which says to me, "Your money or your life," why should I be in haste to give it my money? It may be in a great strait, and not know what to do: I cannot help that. It must help itself; do as I do. It is not worth the while to snivel about it. I am not responsible for the successful working of the machinery of society. I am not the son of the engineer. I perceive that, when an acorn and a chestnut fall side by side, the one does not remain inert to make way for the other, but both obey their own laws, and spring and grow and flourish as best they can, till one, perchance, overshadows and destroys the other. If a plant cannot live according to its nature, it dies; and so a man.

The night in prison was novel and interesting enough. The prisoners in their shirt-sleeves were enjoying a chat and the evening air in the doorway, when I entered. But the jailer said, "Come, boys, it is time to lock up"; and so they dispersed, and I heard the sound of their steps returning into the hollow apartments. My room-mate was introduced to me by the jailer as "a first-rate fellow and a clever man." When the door was locked, he showed me where to hang my hat, and how he managed matters there. The rooms were whitewashed once a month; and this one, at least, was the whitest, most simply furnished, and probably the neatest apartment in the town. He naturally wanted to know where I came from, and what brought me there; and, when I had told him, I asked him in my turn how he came there, presuming him to be an honest man, of course; and, as the world goes, I believe he was. "Why," said he, "they accuse me of burning a barn; but I never did it." As near as I could discover, he had probably gone to bed in a barn when drunk, and smoked his pipe there; and so a barn was burnt. He had the reputation of being a clever man, had been there some three months waiting for his trial to come on, and would have to wait as much longer; but he was quite domesticated and contented, since he got his board for nothing, and thought that he was well treated.

He occupied one window, and I the other; and I saw that if one stayed there long, his principal

business would be to look out the window. I had soon read all the tracts that were left there, and examined where former prisoners had broken out, and where a grate had been sawed off, and heard the history of the various occupants of that room; for I found that even here there was a history and a gossip which never circulated beyond the walls of the jail. Probably this is the only house in the town where verses are composed, which are afterward printed in a circular form, but not published. I was shown quite a long list of verses which were composed by some young men who had been detected in an attempt to escape, who avenged themselves by singing them.

I pumped my fellow-prisoner as dry as I could, for fear I should never see him again; but at length he showed me which was my bed, and left me to blow out the lamp.

It was like travelling into a far country, such as I had never expected to behold, to lie there for one night. It seemed to me that I never had heard the town clock strike before, nor the evening sounds of the village; for we slept with the windows open, which were inside the grating. It was to see my native village in the light of the Middle Ages, and our Concord was turned into a Rhine stream, and visions of knights and castles passed before me. They were the voices of old burghers that I heard in the streets. I was an involuntary spectator and auditor of whatever was done and said in the kitchen of the adjacent village inn - a wholly new and rare experience to me. It was a closer view of my native town. I was fairly inside of it. I never had seen its institutions before. This is one of its peculiar institutions; for it is a shire town. I began to comprehend what its inhabitants were about.

In the morning, our breakfasts were put through the hole in the door, in small oblong-square tin pans, made to fit, and holding a pint of chocolate, with brown bread, and an iron spoon. When they called for the vessels again, I was green enough to return what bread I had left; but my comrade seized it, and said that I should lay that up for lunch or dinner. Soon after he was let out to work at haying in a neighboring field, whither he went every day, and would not be back till noon; so he bade me good-day, saying that he doubted if he should see me again.

When I came out of prison - for some one interfered, and paid that tax - I did not perceive that great changes had taken place on the common, such as he observed who went in a youth and emerged a tottering and gray-headed man; and yet a change had to my eyes come over the scene - the town, and State, and country - greater than any that mere time could effect. I saw yet more distinctly the State in which I lived. I saw to what extent the people among whom I lived could be trusted as good neighbors and friends; that their friendship was for summer weather only; that they did not greatly propose to do right; that they were a distinct race from me by their prejudices and superstitions, as the Chinamen and Malays are; that in their sacrifices to humanity they ran no risks, not even to their property; that after all they were not so noble but they treated the thief as he had treated them, and hoped, by a certain outward observance and a few prayers, and by walking in a particular straight though useless path from time to time, to save their souls. This may be to judge my neighbors harshly; for I believe that many of them are not aware that they have such an institution as the jail in their village.

It was formerly the custom in our village, when a poor debtor came out of jail, for his acquaintances to salute him, looking through their fingers, which were crossed to represent the grating of a jail window, “How do ye do?” My neighbors did not thus salute me, but first looked at me, and then at one another, as if I had returned from a long journey. I was put into jail as I was going to the

shoemaker's to get a shoe which was mended. When I was let out the next morning, I proceeded to finish my errand, and, having put on my mended shoe, joined a huckleberry party, who were impatient to put themselves under my conduct; and in half an hour - for the horse was soon tackled - was in the midst of a huckleberry field, on one of our highest hills, two miles off, and then the State was nowhere to be seen.

This is the whole history of "My Prisons."

I have never declined paying the highway tax, because I am as desirous of being a good neighbor as I am of being a bad subject; and as for supporting schools, I am doing my part to educate my fellow-countrymen now. It is for no particular item in the tax-bill that I refuse to pay it. I simply wish to refuse allegiance to the State, to withdraw and stand aloof from it effectually. I do not care to trace the course of my dollar, if I could, till it buys a man or a musket to shoot one with - the dollar is innocent - but I am concerned to trace the effects of my allegiance. In fact, I quietly declare war with the State, after my fashion, though I will still make what use and get what advantage of her I can, as is usual in such cases.

If others pay the tax which is demanded of me, from a sympathy with the State, they do but what they have already done in their own case, or rather they abet injustice to a greater extent than the State requires. If they pay the tax from a mistaken interest in the individual taxed, to save his property, or prevent his going to jail, it is because they have not considered wisely how far they let their private feelings interfere with the public good.

This, then, is my position at present. But one cannot be too much on his guard in such a case, lest his action be biased by obstinacy or an undue regard for the opinions of men. Let him see that he does only what belongs to himself and to the hour.

I think sometimes, Why, this people mean well, they are only ignorant; they would do better if they knew how: why give your neighbors this pain to treat you as they are not inclined to? But I think again, This is no reason why I should do as they do, or permit others to suffer much greater pain of a different kind. Again, I sometimes say to myself, When many millions of men, without heat, without ill will, without personal feeling of any kind, demand of you a few shillings only, without the possibility, such is their constitution, of retracting or altering their present demand, and without the possibility, on your side, of appeal to any other millions, why expose yourself to this overwhelming brute force? You do not resist cold and hunger, the winds and the waves, thus obstinately; you quietly submit to a thousand similar necessities. You do not put your head into the fire. But just in proportion as I regard this as not wholly a brute force, but partly a human force, and consider that I have relations to those millions as to so many millions of men, and not of mere brute or inanimate things, I see that appeal is possible, first and instantaneously, from them to the Maker of them, and, secondly, from them to themselves. But if I put my head deliberately into the fire, there is no appeal to fire or to the Maker of fire, and I have only myself to blame. If I could convince myself that I have any right to be satisfied with men as they are, and to treat them accordingly, and not according, in some respects, to my requisitions and expectations of what they and I ought to be, then, like a good Mussulman and fatalist, I should endeavor to be satisfied with things as they are, and say it is the will of God. And, above all, there is this difference between resisting this and a purely brute or natural force, that I can resist this with some effect; but I cannot expect, like Orpheus, to change the nature of the rocks and trees and beasts.

I do not wish to quarrel with any man or nation. I do not wish to split hairs, to make fine distinctions, or set myself up as better than my neighbors. I seek rather, I may say, even an excuse for conforming to the laws of the land. I am but too ready to conform to them. Indeed, I have reason to suspect myself on this head; and each year, as the tax-gatherer comes round, I find myself disposed to review the acts and position of the general and State governments, and the spirit of the people, to discover a pretext for conformity.

> "We must affect our country as our parents, And if at any time we alienate Our love or industry from doing it honor, We must respect effects and teach the soul Matter of conscience and religion, And not desire of rule or benefit."

I believe that the State will soon be able to take all my work of this sort out of my hands, and then I shall be no better a patriot than my fellow-countrymen. Seen from a lower point of view, the Constitution, with all its faults, is very good; the law and the courts are very respectable; even this State and this American government are, in many respects, very admirable, and rare things, to be thankful for, such as a great many have described them; but seen from a point of view a little higher, they are what I have described them; seen from a higher still, and the highest, who shall say what they are, or that they are worth looking at or thinking of at all?

However, the government does not concern me much, and I shall bestow the fewest possible thoughts on it. It is not many moments that I live under a government, even in this world. If a man is thought-free, fancy-free, imagination-free, that which is not never for a long time appearing to be to him, unwise rulers or reformers cannot fatally interrupt him.

I know that most men think differently from myself; but those whose lives are by profession devoted to the study of these or kindred subjects content me as little as any. Statesmen and legislators, standing so completely within the institution, never distinctly and nakedly behold it. They speak of moving society, but have no resting-place without it. They may be men of a certain experience and discrimination, and have no doubt invented ingenious and even useful systems, for which we sincerely thank them; but all their wit and usefulness lie within certain not very wide limits. They are wont to forget that the world is not governed by policy and expediency. Webster never goes behind government, and so cannot speak with authority about it. His words are wisdom to those legislators who contemplate no essential reform in the existing government; but for thinkers, and those who legislate for all time, he never once glances at the subject. I know of those whose serene and wise speculations on this theme would soon reveal the limits of his mind's range and hospitality. Yet, compared with the cheap professions of most reformers, and the still cheaper wisdom and eloquence of politicians in general, his are almost the only sensible and valuable words, and we thank Heaven for him. Comparatively, he is always strong, original, and, above all, practical. Still, his quality is not wisdom, but prudence. The lawyer's truth is not Truth, but consistency or a consistent expediency. Truth is always in harmony with herself, and is not concerned chiefly to reveal the justice that may consist with wrong-doing. He well deserves to be called, as he has been called, the Defender of the Constitution. There are really no blows to be given by him but defensive ones. He is not a leader, but a follower. His leaders are the men of '87 - "I have never made an effort," he says, "and never propose to make an effort; I have never countenanced an effort, and never mean to countenance an effort, to disturb the arrangement as originally made, by which the various States came into the Union." Still thinking of the sanction which the Constitution gives to slavery, he says, "Because it was a part of the original compact - let it stand." Notwithstanding his

special acuteness and ability, he is unable to take a fact out of its merely political relations, and behold it as it lies absolutely to be disposed of by the intellect - what, for instance, it behooves a man to do here in America today with regard to slavery - but ventures, or is driven, to make some such desperate answer as the following, while professing to speak absolutely, and as a private man - from which what new and singular code of social duties might be inferred? "The manner," says he, "in which the governments of those States where slavery exists are to regulate it is for their own consideration, under their responsibility to their constituents, to the general laws of propriety, humanity, and justice, and to God. Associations formed elsewhere, springing from a feeling of humanity, or any other cause, have nothing whatever to do with it. They have never received any encouragement from me, and they never will."

They who know of no purer sources of truth, who have traced up its stream no higher, stand, and wisely stand, by the Bible and the Constitution, and drink at it there with reverence and humility; but they who behold where it comes trickling into this lake or that pool, gird up their loins once more, and continue their pilgrimage toward its fountain-head.

No man with a genius for legislation has appeared in America. They are rare in the history of the world. There are orators, politicians, and eloquent men, by the thousand; but the speaker has not yet opened his mouth to speak who is capable of settling the much-vexed questions of the day. We love eloquence for its own sake, and not for any truth which it may utter, or any heroism it may inspire. Our legislators have not yet learned the comparative value of free trade and of freedom, of union, and of rectitude, to a nation. They have no genius or talent for comparatively humble questions of taxation and finance, commerce and manufactures and agriculture. If we were left solely to the wordy wit of legislators in Congress for our guidance, uncorrected by the seasonable experience and the effectual complaints of the people, America would not long retain her rank among the nations. For eighteen hundred years, though perchance I have no right to say it, the New Testament has been written; yet where is the legislator who has wisdom and practical talent enough to avail himself of the light which it sheds on the science of legislation?

The authority of government, even such as I am willing to submit to - for I will cheerfully obey those who know and can do better than I, and in many things even those who neither know nor can do so well - is still an impure one: to be strictly just, it must have the sanction and consent of the governed. It can have no pure right over my person and property but what I concede to it. The progress from an absolute to a limited monarchy, from a limited monarchy to a democracy, is a progress toward a true respect for the individual. Even the Chinese philosopher was wise enough to regard the individual as the basis of the empire. Is a democracy, such as we know it, the last improvement possible in government? Is it not possible to take a step further towards recognizing and organizing the rights of man? There will never be a really free and enlightened State until the State comes to recognize the individual as a higher and independent power, from which all its own power and authority are derived, and treats him accordingly. I please myself with imagining a State at least which can afford to be just to all men, and to treat the individual with respect as a neighbor; which even would not think it inconsistent with its own repose if a few were to live aloof from it, not meddling with it, nor embraced by it, who fulfilled all the duties of neighbors and fellow-men. A State which bore this kind of fruit, and suffered it to drop off as fast as it ripened, would prepare the way for a still more perfect and glorious State, which also I have imagined, but not yet anywhere seen.

The End

Note: Henry David Thoreau (1817-62), American writer and naturalist. 1846, one year after he had moved into his famous cabin on Ralph Waldo Emerson's land at Walden Pond, Massachusetts, Thoreau refused to pay his tax, as a protest against slavery in America. He went to jail (although his aunt payed the tax for him, so he was released the next morning). Thoreau then wrote "Resistance to Civil Government," which was published 1849 and later became known as "Civil Disobedience."

CHAPTER

TWENTYSIX

THE UNDERGROUND MYTH (PUBLISHED IN PHRACK)

–Phrack Inc.–

Volume 0x0c, Issue 0x41, Phile #0x0d of 0x0f:

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Hacker's Myth

This is a statement on the fate of the modern underground. There will be none of the nostalgia, melodrama, black hat rhetoric or white hat over-analysis that normally accompanies such writing.

Since the early sixties there has been just one continuous hacking scene. From phreaking to hacking, people came and went, explosions of activity, various geographical shifts of influence. But although the scene seemed to constantly redefine itself in the ebb and flow of technology, it always had a direct lineage to the past, with similar traditions, culture and spirit.

In the past few years this connection has been completely severed.

And so there's very little point in writing about what the underground used to be; leave that to the historians. Very little point writing about what should be done to make everything good again; leave that to the dreamers and idealists. Instead I'm going to lay down some cold hard facts about the way things are now, and more importantly, how they came to be this way.

This is the story of how the underground died.

The Security Industry

> Then in the U.S. music scene there was big changes made Due to circumstances beyond our control... such as payola The rock n roll scene died after two years of solid rock - The Animals, circa 1964

There is little doubt that the explosion of the security industry has directly coincided with the decline of the hacking scene. The hackers of the eighties and nineties became the security professionals of the new millennium, and the community suffered for it.

The fact is that hackers, mostly on an individual basis, decided to use their passion as a source of income. Whether this is good, bad, or just pragmatic is completely irrelevant. Nearly all the hackers that could get jobs did. For the individuals that decision has been made (for better or worse), and in general there's nothing that will change this.

This was a hacker exodus. What really mattered was not the loss of any individuals, but the cumulative effect this had on the underground. The more hackers that left the underground for a corporate life, the fewer that came in. And those who stayed became entrenched, increasingly disconnected.

Collaboration in this new age of career hackers has all but ceased to exist. Individuals are now obsessed with credit. For their career, for their standing in the community, it must be absolutely clear who this research, this vulnerability, or even this opinion belongs to.

There is no trust in this corporate community; an underground issue greatly amplified by corporate motivations. A single person can go months or even years without telling anyone exactly what he is working on, and whats more, will be genuinely worried about someone "publishing" their results before him. There is no respect for the information he holds, no belief that information should be free, no belief that research should be open. All that matters is credit; all that matters is fame and money, their career.

This is purely the fault of the security industry, who has exploited and cultivated this culture, designed it for their needs. The truly sad thing is that the corporate security world hasn't realized that they are sitting on a gold mine, and as a result the mine is likely to collapse; and likely to take their industry down with it.

The security industry uses information as its sole commodity, information about insecurity. Who has the information, and who doesn't is what makes this economy work. Whats more, the economy has been founded on the continued output of a finite group of hackers. For the most part, founded on those hackers that came out of the underground scene at their technical prime.

But these hackers are not going to continue their production indefinitely. They will lose their technical edge, move on to other industries, perhaps climb the ladder up to management, and then retire. The question is, then what? Then it will be up to the new wave of young security professionals, whose motivation is as much financial as it is passion for the technology and the thrill of the hacking game.

To imagine that these new wave office workers, university trained and disinterested, can match the creative output of a genuine hacker is laughable. The industry will stagnate under these conditions.

The rapid technical advancement we have seen will end, no more breakthroughs: no more new security products or services. Just the same old techniques being rehashed again and again until the rock has been bled dry.

I am trying to show you the symbiotic nature of the security industry and the hacking scene. Industry needs insecurity to survive, there is no doubt about this. A secure and stable Internet is not profitable for long. Hackers provided instability, change, chaos. So the industry became a parasite on the hacking scene, devouring the talent pool without giving anything back, not thinking of what will happen when there are no more hackers to consume.

For this reason, the security industry, much like the hacker underground, is doomed, perhaps even destined for failure. But for now, all that matters is that we have a thriving industry and...

A hacker underground proclaimed to be dead.

Black Hat, Two Faces

It would be easy to lay the blame squarely on the shoulders of the security industry. A lot of people have. Unfortunately, its not that simple. Perhaps the underground could have survived without the lure of a six figure job, but one thing should be made clear. The self-proclaimed black hat movement does nothing to help.

Various black hat groups have claimed to be the voice of the underground, but the black hat scene was only ever a pale imitation of the actual underground. The underground wasn't at all interested in public self-aggrandizement, but this is all the black hats ever did. All that their various rants and escapades accomplished was to show how desperate they actually were for fame and recognition.

But whats worse, while they often talk a big game, they very rarely have the pedigree to back it up. This is mostly because these self-proclaimed black hats are really just as self-serving as the white hats they pretend to detest. With few exceptions, those black hats that aren't already working in the security industry are those that don't have the skills to cut it.

The entire anti-security theme was simply embarrassing. This was just the black hat movement admitting that they couldn't step up and represent in an increasingly technical world. Where once hacking skill commanded respect, now the black hats were promoting misinformation in order to make what few hacks they managed to pull off easier. They couldn't step up to a challenge, they couldn't outsmart the white hats they so detest.

This ineptitude and misguided fervor of the black hat scene had a massive negative impact on the hacking underground. The true voice of the underground was lost behind the noise and drama, until the voice became a whisper.

And then eventually fell silent.

Technology

The very nature of technology, a dynamic and intractable force, had a lot to say in the demise of the hacking world. In many cases, if a black hat had been active 5 or 10 years earlier they would have been technically competent and may well have contributed significantly. This is because with the utmost respect, and despite all the nostalgia, hackers of the past had it easy.

In the early years, the problems hackers faced were largely related to the availability of information. Isolated groups of people had their tricks and techniques, and sharing this information was problematic. This is in direct contrast with the situation today, where there is an excess of information but a void of quality.

As a result of many differing factors, the world is becoming aware of the threats posed by lax security. When there is money at risk, steps will be taken to protect those assets. We see now an increasing move towards technical security mechanisms being employed as part of a defense in depth strategy, and as a result, to be a hacker today requires immense technical ability in a broad range of disciplines. It takes years of individual study to reach this level.

But unfortunately, fewer and fewer people are willing, or indeed capable of following this path, of pursuing that ever-unattainable goal of technical perfection. Instead, the current trend is to pursue the lowest common denominator, to do the least amount of work to gain the most fame, respect or money.

There has also been an increasingly narrow range in what is published. In part this is because of the lack of accessibility of certain systems (through obscurity or price), but this is also increasingly dictated by fashion. In a desire to fit in with the community, to be accepted in to conferences, to be seen doing the right things in the right places with the right people, researchers are all too happy to slot in to this pattern of predictable and narrow progress.

And even then, the standards of what makes acceptable research, or for what makes a vulnerability interesting, drops with every year. The gap between offensive research and defensive implementations continues to grow, to the point where public vulnerability research has become a parody of what it once was, a type of inside joke.

There is no creativity, no sense of arcana anymore.

Criminals

From Operation Sundevil to cyber terrorism. The criminalization of computer hacking and, by association, computer hackers had a devastating impact on the underground. Hacking was criminalized in two ways, both of near equal importance: by legislation of computer crimes, and by the new trend of genuine criminals using hacking as a method for fraud.

There should be a clear separation between these two things. The fact that the underground collectively became criminals under the law for what they had been doing for, in some cases, decades. And the fact that in public perception, even among professionals that should know better, there

was very little distinction between a genuine hacker and those criminals using hacking purely as a method for profit.

Indeed, little of what organized crime and terrorist/activist groups are doing could justifiably be labeled hacking. It is simply convenient to make this simplification, in media and in industry. The security industry knows the difference, but they have no economic interest in there being any clarity on this point. Any sort of hacking, anything they can sensationalize enough to scare their profit margin up suits them perfectly.

For the underground, these issues largely affected individuals, not the broader structure of things. Each person had to make a personal decision on whether it was worth 1) being seen as a criminal under the law and 2) being seen as a criminal in public perception. Why should the hacker face this when such an easy, safe, respectable alternative is available in the security industry?

Even the term black hat has been twisted into something more closely aligned to organized crime. For all their faults, black hats were not (in theory) motivated by this type of money.

It comes down to an aging hacking population deciding, on an individual basis, to settle down with their families, their material possessions, their careers. No one can argue that there is anything wrong with this. It is just a fact that these hackers left the scene behind.

Leaving a void too large to be filled.

Forgotten Youth

The forgotten aspect of this whole story is, without doubt, the importance of new talent entering the world of hacking. Historically, hacking has belonged to the young. With every passing year, the average age of hackers collectively increases. Some would claim this is a sign of a maturing discipline. For surely, what could youth possibly contribute in this technological landscape? They call them kids, dismiss them as irrelevant.

Despite all of the issues facing the underground, if hackers had managed to get this one aspect right, if they had recognized the importance of those who would come after them, if they had given them something to aspire to be, if they had directly or indirectly taught them the accumulated wisdom that so often separates a hacker from the crowd; then perhaps there still would be a hacker underground.

Nearly all of the situations surrounding the disestablishment of the underground were circumstantial, there was nobody to blame, and nothing that could be done. But one point for which this was not true was the underground's obligations to young hackers. An entire generation of talented hackers have lost the opportunity to become a part of something bigger than themselves by participating in a functioning hacking community, simply because hackers were too self-absorbed to notice.

The decline of the underground scene happened relatively quickly, and also relatively quietly. The hacker who left the underground behind for his new life was unlikely to justify or explain his choices. In fact it was more likely he would deny being changed at all. It's likely he'd even

continue to have contact with his fellow ex-hackers, in some imitation of the underground scene. This only helped to obscure what was actually happening.

Today's youth, for the most part, have no true understanding of hackers or hacking. They have no knowledge of the history, no knowledge that a history even exists. Their hacker is the media's hacker, the cyber terrorist, the Russian mafia. This is unfortunate, but the real trouble begins for those few that somehow become interested enough to look a bit deeper.

The average person requires some form of role model, something to aspire to, to imitate and to an extent, to idolize. At this time, the only visible efforts were the white hat researchers, the black hat horde or various other technically inept self-proclaimed 'experts'. There is so little inspiring research, and even less inspiring hacking, that anyone new to the world of hacking is almost invariably left with a skewed impression of things.

Indeed, for a lot of the young people that managed to acquire the necessary technical base, hacking was seen as simply an interesting career path. There is no passion in these people, no motivation to extend and create. A competent professional, valued employee.

But no longer a hacker.

The Forward Link

The hacker underground has been systematically dismantled, a victim of circumstance. There was no reason for this, no conspiracy, no winner. A conquered people, but with no conqueror, no enemy to fight. No chance of rebellion. Conquered by circumstance, if not fate.

At first this would seem to be a bleak message. What is the point of even trying anymore? Why practice a dead art? But the truth is that the art is not dead, just the circle that brought the artists together. The hacker underground is broken, but the hackers are not.

Casualties have been high; but there still exists a scattered, marginalized, and misrepresented people who are the hackers. Hackers, not black hat nor white, not professionals, not amateurs (surely none of this matters), are still out there in this world today, still with all the potential to be something great.

The question is not then how to artificially group these people into a new underground movement. The question is not how to mourn the passing of the golden days, how to keep the memories alive. There are no questions of this sort, no problems that can be solved or corrected by individual action.

All that remains is to relax, to do what you enjoy doing; to hack purely for the enjoyment of doing so. The rest will come naturally, a new scene, with its own traditions, culture and history. A new underground, organically formed over time, just like the first, out of the hacker's natural inclination to share and explore.

It will take time, and there will be difficulties. Some will not be able to let go of the past, and some will fail for not remembering it. But in the end, after everything has been said and done, the equilibrium will be restored.

A new world, at the frontier of cyberspace, belonging to the hackers by right.

CHAPTER

TWENTYSEVEN

A HACKER MANIFESTO [VERSION 4.0] (MCKENZIE WARK)

Version 4.0 edited by Joanne Richardson for subsol. A much longer Version 2.0 can be found online at feelergauge and textz.com . Version 3.0 is still off-line.

Manifestation

1. There is a double spooking the world, the double of abstraction. The fortunes of states and armies, companies and communities depend on it. All contending classes - the landlords and farmers, the workers and capitalists - revere yet fear the relentless abstraction of the world on which their fortunes yet depend. All the classes but one. The hacker class.
2. Whatever code we hack, be it programming language, poetic language, math or music, curves or colourings, we create the possibility of new things entering the world. Not always great things, or even good things, but new things. In art, in science, in philosophy and culture, in any production of knowledge where data can be gathered, where information can be extracted from it, and where in that information new possibilities for the world are produced, there are hackers hacking the new out of the old. While hackers create these new worlds, we do not possess them. That which we create is mortgaged to others, and to the interests of others, to states and corporations who control the means for making worlds we alone discover. We do not own what we produce - it owns us.
3. And yet we don't quite know who we are. While we recognise our distinctive existence as a group, as programmers, as artists or writers or scientists or musicians, we rarely see these ways of representing ourselves as mere fragments of a class experience that is still struggling to express itself as itself, as expressions of the process of producing abstraction in the world. Geeks and freaks become what they are negatively, through their exclusion by others. Hackers are a class, but an abstract class, a class as yet to hack itself into manifest existence as itself.

Abstraction

4. Abstraction may be discovered or produced, may be material or immaterial, but abstraction is what every hack produces and affirms. To abstract is to construct a plane upon which otherwise different and unrelated matters may be brought into many possible relations. It is through the abstract that the virtual is identified, produced and released. The virtual is not just the potential latent in matters, it is the potential of potential. To hack is to produce or apply the abstract to information and express the possibility of new worlds.

5. All abstractions are abstractions of nature. To abstract is to express the virtuality of nature, to make known some instance of its manifold possibilities, to actualise a relation out of infinite relationality. Abstractions release the potential of physical matter. And yet abstraction relies on something that has an independent existence to physical matter – information. Information is no less real than physical matter, and is dependent on it for its existence. Since information cannot exist in a pure, immaterial form, neither can the hacker class. Of necessity it must deal with a ruling class that owns the material means of extracting or distributing information, or with a producing class that extracts and distributes. The class interest of hackers lies in freeing information from its material constraints.

6. As the abstraction of private property was extended to information, it produced the hacker class as a class. Hackers must sell their capacity for abstraction to a class that owns the means of production, the vectoralist class - the emergent ruling class of our time. The vectorialist class is waging an intensive struggle to dispossess hackers of their intellectual property. Patents and copyrights all end up in the hands, not of their creators, but of the vectoralist class that owns the means of realising the value of these abstractions. The vectoralist class struggles to monopolise abstraction. Hackers find themselves dispossessed both individually, and as a class. Hackers come piecemeal to struggle against the particular forms in which abstraction is commodified and made into the private property of the vectoralist class. Hackers come to struggle collectively against the usurious charges the vectoralists extort for access to the information that hackers collectively produce, but that vectoralists collectively come to own. Hackers come as a class to recognise their class interest is best expressed through the struggle to free the production of abstraction not just from the particular fetters of this or that form of property, but to abstract the form of property itself.

7. What makes our times different is that what now appears on the horizon is the possibility of a society finally set free from necessity, both real and imagined, by an explosion in abstract innovations. Abstraction with the potential once and for all to break the shackles holding hacking fast to outdated and regressive class interests. The time is past due when hackers must come together with all of the producing classes of the world - to liberate productive and inventive resources from the myth of scarcity. “The world already possesses the dream of a time whose consciousness it must now possess in order to actually live it.”

Production

8. Production produces all things, and all producers of things. Production produces not only the object of the production process, but also the producer as subject. Hacking is the production of production. The hack produces a production of a new kind, which has as its result a singular and unique product, and a singular and unique producer. Every hacker is at one and the same time producer and product of the hack, and emerges in its singularity as the memory of the hack as process.

9. Production takes place on the basis of a prior hack which gives to production its formal, social, repeatable and reproducible form. Every production is a hack formalised and repeated on the basis of its representation. To produce is to repeat; to hack, to differentiate.

10. The hack produces both a useful and a useless surplus, although the usefulness of any surplus is socially and historically determined. The useful surplus goes into expanding the realm of freedom wrested from necessity. The useless surplus is the surplus of freedom itself, the margin of free production unconstrained by production for necessity.

11. The production of a surplus creates the possibility of the expansion of freedom from necessity. But in class society, the production of a surplus also creates new necessities. Class domination takes the form of the capture of the productive potential of society and its harnessing to the production, not of liberty, but of class domination itself. The ruling class subordinates the hack to the production of forms of production that may be harnessed to the enhancement of class power, and the suppression or marginalisation of other forms of hacking. What the producing classes - farmers, workers and hackers - have in common is an interest in freeing production from its subordination to ruling classes who turn production into the production of new necessities, who wrest slavery from surplus. The elements of a free productivity exist already in an atomised form, in the productive classes. What remains is the release of its virtuality.

Class

12. The class struggle, in its endless setbacks, reversals and compromises returns again and again to the unanswered question - property - and the contending classes return again and again with new answers. The working class questioned the necessity of private property, and the communist party arose, claiming to answer the desires of the working class. The answer, expressed in the Communist Manifesto was to "centralise all instruments of production in the hands of the state." But making the state the monopolist of property has only produced a new ruling class, and a new and more brutal class struggle. But perhaps this was not the final answer, and the course of the class struggle is not yet over. Perhaps there is another class that can pose the property question in a new way - and offer new answers to breaking the monopoly of the ruling classes on property.

13. There is a class dynamic driving each stage of the development of the vectoral world in

which we now find ourselves. The pastoralist class disperse the great mass of peasants who traditionally worked the land under the thumb of feudal landlords. The pastoralists supplant the feudal landlords, releasing the productivity of the land which they claim as their private property. As new forms of abstraction make it possible to produce a surplus from the land with fewer and fewer farmers, pastoralists turn them off their land, depriving them of their living. Dispossessed farmers seek work and a new home in cities. Here farmers become workers, as capital puts them to work in its factories. Capital as property gives rise to a class of capitalists who own the means of production, and a class of workers, dispossessed of it - and by it. Dispossessed farmers become workers, only to be dispossessed again. Having lost their land, they lose in turn their culture. Capital produces in its factories not just the necessities of existence, but a way of life it expects its workers to consume. Commodified life dispossess the worker of the information traditionally passed on outside the realm of private property as culture, as the gift of one generation to the next, and replaces it with information in commodified form.

14. Information, like land or capital, becomes a form of property monopolised by a class of vectoralists, so named because they control the vectors along which information is abstracted, just as capitalists control the material means with which goods are produced, and pastoralists the land with which food is produced. Information circulated within working class culture as a social property belonging to all. But when information in turn becomes a form of private property, workers are dispossessed of it, and must buy their own culture back from its owners, the vectoralist class. The whole of time, time itself, becomes a commodified experience.

15. Vectoralists try to break capital's monopoly on the production process, and subordinate the production of goods to the circulation of information. The leading corporations divest themselves of their productive capacity, as this is no longer a source of power. Their power lies in monopolising intellectual property - patents and brands - and the means of reproducing their value - the vectors of communication. The privatisation of information becomes the dominant, rather than a subsidiary, aspect of commodified life. As private property advances from land to capital to information, property itself becomes more abstract. As capital frees land from its spatial fixity, information as property frees capital from its fixity in a particular object.

16. The hacker class, producer of new abstractions, becomes more important to each successive ruling class, as each depends more and more on information as a resource. The hacker class arises out of the transformation of information into property, in the form of intellectual property, including patents, trademarks, copyright and the moral right of authors. The hacker class is the class with the capacity to create not only new kinds of object and subject in the world, not only new kinds of property form in which they may be represented, but new kinds of relation beyond the property form. The formation of the hacker class as a class comes at just this moment when freedom from necessity and from class domination appears on the horizon as a possibility.

Property

17. Property constitutes an abstract plane upon which all things may be things with one quality in common, the quality of property. Land is the primary form of property. Pastoralists acquire land as private property through the forced dispossession of peasants who once shared a portion of it in a form of public ownership. Capital is the secondary form of property, the privatisation of productive assets in the form of tools, machines and working materials. Capital, unlike land, is not in fixed supply or disposition. It can be made and remade, moved, aggregated and dispersed. An infinitely greater degree of potential can be released from the world as a productive resource once the abstract plane of property includes both land and capital - such is capital's 'advance'.

18. The capitalist class recognises the value of the hack in the abstract, whereas the pastoralists were slow to appreciate the productivity that can flow from the application of abstraction to the production process. Under the influence of capital, the state sanctions forms of intellectual property, such as patents and copyrights, that secure an independent existence for hackers as a class, and a flow of innovations in culture as well as science from which development issues. Information, once it becomes a form of property, develops beyond a mere support for capital - it becomes the basis of a form of accumulation in its own right.

19. Hackers must calculate their interests not as owners, but as producers, for this is what distinguishes them from the vectoralist class. Hackers do not merely own, and profit by owning information. They produce new information, and as producers need access to it free from the absolute domination of the commodity form. Hacking as a pure, free experimental activity must be free from any constraint that is not self imposed. Only out of its liberty will it produce the means of producing a surplus of liberty and liberty as a surplus.

20. Private property arose in opposition not only to feudal property, but also to traditional forms of the gift economy, which were a fetter to the increased productivity of the commodity economy. Qualitative, gift exchange was superseded by quantified, monetised exchange. Money is the medium through which land, capital, information and labour all confront each other as abstract entities, reduced to an abstract plane of measurement. The gift becomes a marginal form of property, everywhere invaded by the commodity, and turned towards mere consumption. The gift is marginal, but nevertheless plays a vital role in cementing reciprocal and communal relations among people who otherwise can only confront each other as buyer and sellers of commodities. As vectoral production develops, the means appear for the renewal of the gift economy. Everywhere that the vector reaches, it brings into the orbit of the commodity. But everywhere the vector reaches, it also brings with it the possibility of the gift relation.

21. The hacker class has a close affinity with the gift economy. The hacker struggles to produce a subjectivity that is qualitative and singular, in part through the act of the hack itself. The gift, as a qualitative exchange between singular parties allows each party to be recognised as a singular producer, as a subject of production, rather than as a commodified and quantified object. The gift expresses in a social and collective way the subjectivity of the production of production, whereas commodified property represents the producer as an object, a quantifi-

able commodity like any other, of relative value only. The gift of information need not give rise to conflict over information as property, for information need not suffer the artifice of scarcity once freed from commodification.

22. The vectoralist class contributed, unwittingly, to the development of the vectoral space within which the gift as property could return, but quickly recognised its error. As the vectoral economy develops, less and less of it takes the form of a social space of open and free gift exchange, and more and more of it takes the form of commodified production for private sale. The vectoralist class can grudgingly accommodate some margin of socialised information, as the price it pays in a democracy for the furtherance of its main interests. But the vectoralist class quite rightly sees in the gift a challenge not just to its profits but to its very existence. The gift economy is the virtual proof for the parasitic and superfluous nature of vectoralists as a class.

Vector

23. In epidemiology, a vector is the particular means by which a given pathogen travels from one population to another. Water is a vector for cholera, bodily fluids for HIV. By extension, a vector may be any means by which information moves. Telegraph, telephone, television, telecommunications: these terms name not just particular vectors, but a general abstract capacity that they bring into the world and expand. All are forms of telesthesia, or perception at a distance. A given media vector has certain fixed properties of speed, bandwidth, scope and scale, but may be deployed anywhere, at least in principle. The uneven development of the vector is political and economic, not technical.

24. With the commodification of information comes its vectoralisation. Extracting a surplus from information requires technologies capable of transporting information through space, but also through time. The archive is a vector through time just as communication is a vector that crosses space. The vectoral class comes into its own once it is in possession of powerful technologies for vectoralising information. The vectoral class may commodify information stocks, flows, or vectors themselves. A stock of information is an archive, a body of information maintained through time that has enduring value. A flow of information is the capacity to extract information of temporary value out of events and to distribute it widely and quickly. A vector is the means of achieving either the temporal distribution of a stock, or the spatial distribution of a flow of information. Vectoral power is generally sought through the ownership of all three aspects.

25. The vectoral class ascend to the illusion of an instantaneous and global plane of calculation and control. But it is not the vectoralist class that comes to hold subjective power over the objective world. The vector itself usurps the subjective role, becoming the sole repository of will toward a world that can be apprehended only in its commodified form. The reign of the vector is one in which any and every thing can be apprehended as a thing. The vector is a power over all of the world, but a power that is not evenly distributed. Nothing in the technology of the vector determines its possible use. All that is determined by the technology

is the form in which information is objectified.

26. The vectoral class struggles at every turn to maintain its subjective power over the vector, but as it continues to profit by the proliferation of the vector, some capacity over it always escapes control. In order to market and profit by the information it peddles over the vector, it must in some degree address the vast majority of the producing classes as subjects, rather than as objects of commodification. The hacker class seeks the liberation of the vector from the reign of the commodity, but not to set it indiscriminately free. Rather, to subject it to collective and democratic development. The hacker class can release the virtuality of the vector only in principle. It is up to an alliance of all the productive classes to turn that potential to actuality, to organise themselves subjectively, and use the available vectors for a collective and subjective becoming.

Education

27. Education is slavery, it enchains the mind and makes it a resource for class power. When the ruling class preaches the necessity of an education it invariably means an education in necessity. Education is not the same as knowledge. Nor is it the necessary means to acquire knowledge. Education is the organisation of knowledge within the constraints of scarcity. Education 'disciplines' knowledge, segregating it into homogenous 'fields', presided over by suitably 'qualified' guardians charged with policing the representation of the field. One may acquire an education, as if it were a thing, but one becomes knowledgeable, through a process of transformation. Knowledge, as such, is only ever partially captured by education, its practice always eludes and exceeds it.

28. The pastoralist class has resisted education, other than as indoctrination in obedience. When capital required 'hands' to do its dirty work, the bulk of education was devoted to training useful hands to tend the machines, and docile bodies who would accept as natural the social order in which they found themselves. When capital required brains, both to run its increasingly complex operations and to apply themselves to the work of consuming its products, more time spent in the prison house of education was required for admission to the ranks of the paid working class.

29. The so-called middle class achieve their privileged access to consumption and security through education, in which they are obliged to invest a substantial part of their income. But most remain workers, even though they work with information rather than cotton or metal. They work in factories, but are trained to think of them as offices. They take home wages, but are trained to think of it as a salary. They wear a uniform, but are trained to think of it as a suit. The only difference is that education has taught them to give different names to the instruments of exploitation, and to despise those their own class who name them differently.

30. Where the capitalist class sees education as a means to an end, the vectoralist class sees it as an end in itself. It sees opportunities to make education a profitable industry in its own

right, based on the securing of intellectual property as a form of private property. To the vectoralists, education, like culture, is just 'content' for commodification.

31. The hacker class have an ambivalent relationship to education. The hacker class desires knowledge, not education. The hacker comes into being though the pure liberty of knowledge in and of itself. The hack expresses knowledge in its virtuality, by producing new abstractions that do not necessarily fit the disciplinary regime of managing and commodifying education. . Hacker knowledge implies, in its practice, a politics of free information, free learning, the gift of the result to a network of peers. Hacker knowledge also implies an ethics of knowledge subject to the claims of public interest and free from subordination to commodity production. This puts the hacker into an antagonistic relationship to the struggle of the capitalist class to make education an induction into wage slavery.
32. Only one intellectual conflict has any real bearing on the class issue for hackers: Whose property is knowledge? Is it the role of knowledge to authorise subjects through education that are recognised only by their function in an economy by manipulating its authorised representations as objects? Or is it the function of knowledge to produce the ever different phenomena of the hack, in which subjects become other than themselves, and discover the objective world to contain potentials other than it appears?

Hacking

33. The virtual is the true domain of the hacker. It is from the virtual that the hacker produces ever-new expressions of the actual. To the hacker, what is represented as being real is always partial, limited, perhaps even false. To the hacker there is always a surplus of possibility expressed in what is actual, the surplus of the virtual. This is the inexhaustible domain of what is real without being actual, what is not but which may be. To hack is to release the virtual into the actual, to express the difference of the real.
34. Through the application of abstraction, the hacker class produces the possibility of production, the possibility of making something of and with the world - and of living off the surplus produced by the application of abstraction to nature - to any nature. Through the production of new forms of abstraction, the hacker class produces the possibility of the future - not just 'the' future, but an infinite possible array of futures, the future itself as virtuality.
35. Under the sanction of law, the hack becomes a finite property, and the hacker class emerges, as all classes emerge, out of a relation to a property form. Like all forms of property, intellectual property enforces a relation of scarcity. It assigns a right to a property to an owner at the expense of non-owners, to a class of possessors at the expense of the dispossessed.
36. By its very nature, the act of hacking overcomes the limits property imposes on it. New hacks supersede old hacks, and devalues them as property. The hack as new information is produced out of already existing information. This gives the hacker class an interest in its free availability more than in an exclusive right. The immaterial nature of information means that the possession by one of information need not deprive another of it.

37. To the extent that the hack embodies itself in the form of property, it gives the hacker class interests quite different from other classes, be they exploiting or exploited classes. The interest of the hacker class lies first and foremost in a free circulation of information, this being the necessary condition for the renewed statement of the hack. But the hacker class as class also has an interest in the representation of the hack as property, as something from which a source of income may be derived that gives the hacker some independence from the ruling classes.

38. The very nature of the hack gives the hacker a crisis of identity. The hacker searches for a representation of what it is to be a hacker in the identities of other classes. Some see themselves as vectoralists, trading on the scarcity of their property. Some see themselves as workers, but as privileged ones in a hierarchy of wage earners. The hacker class has produces itself as itself, but not for itself. It does not (yet) possess a consciousness of its consciousness. It is not aware of its own virtuality. It has to distinguish between its competitive interest in the hack, and its collective interest in discovering a relation among hackers that expresses an open and ongoing future.

Information

39. Information wants to be free but is everywhere in chains. Information is the potential of potential. When unfettered it releases the latent capacities of all things and people, objects and subjects. Information is indeed the very potential for there to be objects and subjects. It is the medium in which objects and subjects actually come into existence, and is the medium in which their virtuality resides. When information is not free, then the class that owns or controls it turns its capacity toward its own interest and away from its own inherent virtuality.

40. Information has nothing to do with communication, or with media. "We do not lack communication. On the contrary, we have too much of it. We lack creation. We lack resistance to the present." Information is precisely this resistance, this friction. At the urgings of the vectoralist class, the state recognises as property any communication, any media product with some minimal degree of difference recognisable in commodity exchange. Where communication merely requires the repetition of this commodified difference, information is the production of the difference of difference.

41. The arrest of the free flow of information means the enslavement of the world to the interests of those who profit from information's scarcity, the vectoral class. The enslavement of information means the enslavement of its producers to the interests of its owners. It is the hacker class that taps the virtuality of information, but it is the vectoralist class that owns and controls the means of production of information on an industrial scale. Privatising culture, education and communication as commodified content, distorts and deforms its free development, and prevents the very concept of its freedom from its own free development. While information remains subordinated to ownership, it is not possible for its producers to freely calculate their interests, or to discover what the true freedom of information might potentially produce in the world.

42. Free information must be free in all its aspects - as a stock, as a flow, and as a vector. The stock of information is the raw material out of which history is abstracted. The flow of information is the raw material out of which the present is abstracted, a present that forms the horizon the abstract line of an historical knowledge crosses, indicating a future in its sights. Neither stocks nor flows of information exist without vectors along which they may be actualised. The spatial and temporal axes of free information must do more offer a representation of things, as a thing apart. They must become the means of coordination of the statement of a movement, at once objective and subjective, capable of connecting the objective representation of things to the presentation of a subjective action.

43. It is not just information that must be free, but the knowledge of how to use it. Information in itself is a mere thing. It requires an active, subjective capacity to become productive. Information is free not for the purpose of representing the world perfectly, but for expressing its difference from what is, and for expressing the cooperative force that transforms what is into what may be. The test of a free society is not the liberty to consume information, nor to produce it, nor even to implement its potential in private world of one's choosing. The test of a free society is the liberty for the collective transformation of the world through abstractions freely chosen and freely actualised.

Representation

44. All representation is false. A likeness differs of necessity from what it represents. If it did not, it would be what it represents, and thus not a representation. The only truly false representation is the belief in the possibility of true representation. Critique is not a solution, but the problem itself. Critique is a police action in representation, of service only to the maintenance of the value of property through the establishment of its value.

45. The politics of representation is always the politics of the state. The state is nothing but the policing of representation's adequacy to the body of what it represents. Even in its most radical form, the politics of representation always presupposes an abstract or ideal state that would act as guarantor of its chosen representations. It yearns for a state that would recognise this oppressed ethnicity, or sexuality, but which is nevertheless still a desire for a state, and a state that, in the process, is not challenged as an statement of class interest, but is accepted as the judge of representation.

46. And always, what is excluded even from this enlightened, imaginary state, would be those who refuse representation, namely, the hacker class as a class. To hack is to refuse representation, to make matters express themselves otherwise. To hack is always to produce a difference, if only a minute difference, in the production of information. To hack is to trouble the object or the subject, by transforming in some way the very process of production by which objects and subjects come into being and recognise each other by their representations.

47. The politics of information, of knowledge, advances not through a critical negation of false representations but a positive politics of the virtuality of statement. The inexhaustible surplus

of statement is that aspect of information upon which the class interest of hackers depends. Hacking brings into existence the inexhaustible multiplicity of all codes, be they natural or social, programmed or poetic. But as it is the act of hacking that composes, at one and the same time, the hacker and the hack, hacking recognises no artificial scarcity, no official licence, no credentialing police force other than that composed by the gift economy among hackers themselves.

48. A politics that embraces its existence as statement, as affirmative difference, not as negation can escape the politics of the state. To ignore or plagiarise representation, to refuse to give it what it claims as its due, is to begin a politics of statelessness. A politics which refuses the state's authority to authorise what is a valued statement and what isn't. A politics which is always temporary, always becoming something other than itself. Even useless hacks may come, perversely enough, to be valued for the purity of their uselessness. There is nothing that can't be valued as a representation. The hack always has to move on.

49. Everywhere dissatisfaction with representations is spreading. Sometimes its a matter of breaking a few shop windows, sometimes of breaking a few heads. So-called 'violence' against the state, which rarely amounts to more than throwing rocks at its police, is merely the desire for the state expressed in its masochistic form. Where some call for a state that recognises their representation, others call for a state that beats them to a pulp. Neither is a politics that escapes the desire cultivated within the subject by the educational apparatus.

50. Sometimes direct democracy is posited as the alternative. But this merely changes the moment of representation - it puts politics in the hands of claimants to an activist representation, in place of an electoral one.. Sometimes what is demanded of the politics of representation is that it recognise a new subject. Minorities of race, gender, preference demand the right to representation. But soon enough they discover the cost. They must now police the meaning of this representation, and police the adherence of its members to it. Even at its best, in its most abstract form, on its best behaviour, the colour blind, gender neutral, multicultural state just hands the value of representation over to the commodity form. While this is progress, particularly for those formerly oppressed by the state's failure to recognise their identity as legitimate, it stops short at the recognition of expressions of subjectivity that seeks to become something other than a representation that the state can recognise and the market can value.

51. But there is something else hovering on the horizon of the representable. There is a politics of the unrepresentable, a politics of the presentation of the non-negotiable demand. This is politics as the refusal of representation itself, not the politics of refusing this or that representation. A politics which, while abstract, is not utopian. In its infinite and limitless demand, it may even be the best way of extracting concessions precisely through its refusal to put a name - or a price - on what revolt desires.

Revolt

52. The revolts of 1989 are the signal events of our time. What the revolts of 1989 achieved was the overthrow of regimes so impervious to the recognition of the value of the hack that they had starved not only their hackers but also their workers and farmers of any increase in the surplus. With their cronyism and kleptocracy, their bureaucracy and ideology, their police and spies, they starved even their pastoralists and capitalists of innovative transformation and growth.

53. The revolts of 1989 overthrew boredom and necessity. At least for a time. They put back on the world historical agenda the limitless demand for free statement. At least for a time. They revealed the latent destiny of world history to express the pure virtuality of becoming. At least for a time, before new states cobbled themselves together and claimed legitimacy as representations of what revolt desired. The revolts of 1989 opened the portal to the virtual, but the states that regrouped around this opening soon closed it. What the revolts really achieved was the making of the world safe for vectoral power.

54. The so-called anti-globalisation protests of the 90s are a ripple caused by the wake of these signal events, but a ripple that did not know the current to which it truly belonged. This movement of revolt in the overdeveloped world identifies the rising vectoral power as a class enemy, but all too often it allowed itself to be captured by the partial and temporary interests of local capitalist and pastoralist classes. It was a revolt is in its infancy that has yet to discover the connection between its engine of limitless desire and free statement, and the art of making tactical demands.

55. The class struggle within nations and the imperial struggle between nations has taken shape as two forms of politics. One kind of politics is regressive. It seeks to return to an imagined past. It seeks to use national borders as a new wall, a neon screen behind which unlikely alliances might protect their existing interests in the name of a glorious past. The other form is the progressive politics of movement. The politics of movement seeks to accelerate toward an unknown future. It seeks to use international flows of information, trade or activism as the eclectic means for struggling for new sources of wealth or liberty that overcomes the limitations imposed by national coalitions.

56. Neither of these politics corresponds to the old notion of a left or right, which the revolutions of 1989 have definitively overcome. Regressive politics brings together luddite impulses from the left with racist and reactionary impulses from the right in an unholy alliance against new sources of power. Progressive politics rarely takes the form of an alliance, but constitutes two parallel processes locked in a dialogue of mutual suspicion, in which the liberalising forces of the right and the social justice and human rights forces of the left both seek non-national and transnational solutions to unblocking the system of power which still accumulates at the national level.

57. There is a third politics, which stands outside the alliances and compromises of the post-89 world. Where both progressive and regressive politics are representative politics, which deal with aggregate party alliances and interests, this third politics is a stateless politics, which

seeks escape from politics as such. A politics of the hack, inventing relations outside of representation.

58. Expressive politics is a struggle against commodity property itself. Expressive politics is not the struggle to collectivise property, for that is still a form of property. Expressive politics is the struggle to free what can be free from both versions of the commodity form - its totalising market form, and its bureaucratic state form. What may be free from the commodity form altogether is not land, not capital, but information. All other forms of property are exclusive. The ownership by one excludes, by definition, the ownership by another. But information as property may be shared without diminishing anything but its scarcity. Information is that which can escape the commodity form.

59. Politics can become expressive only when it is a politics of freeing the virtuality of information. In liberating information from its objectification as a commodity, it liberates also the subjective force of statement. Subject and object meet each other outside of their mere lack of each other, by their desire merely for each other. Expressive politics does not seek to overthrow the existing society, or to reform its larger structures, or to preserve its structure so as to maintain an existing coalition of interests. It seeks to permeate existing states with a new state of existence, spreading the seeds of an alternative practice of everyday life.

CHAPTER

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CHAPTER

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- genindex
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